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THE BALANCE SHEET OF AGRICULTURE

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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

Washington, D. C., February 1948

EXPLANATION

This is the third of a series of annual reports which are designed to carry forward the comparative balance sheet of agriculture. This balance sheet, formulated by the Bureau of Agricultural Economics, was first issued in processed form in September 1944 and was called The Impact of the War on the Financial Structure of Agriculture. In August 1945 a printed report of this study under the same title was issued as Miscellaneous Publication 567 of the United States Department of Agriculture. In that report the nature and significance of the financial structure of agriculture were analyzed, and the meaning, use, and limitations of the balance sheet and its individual items were considered.

Many of the considerations in that publication are still pertinent, and may be referred to by those who examine the balance sheet of agriculture for the first time. In the present publication it will suffice to remind the reader that in a country so vast and diversified as the United States, financial changes are never entirely uniform, either for the various geographic areas or for individuals. Therefore, even when the balance sheet accurately reflects the aggregate, it does not reveal differences in circumstances that exist in different States and regions and among individual farmers. The report for 1946 was issued as United States Department of Agriculture Miscellaneous Publication 620, The Balance Sheet of Agriculture, 1946.

Data relating to the inventories of real estate, livestock, crops, machinery, and household equipment were prepared under the direction of the following persons: Real estate—M. M. Regan, A. R. Johnson; livestock—A. V. Nordquist; crops—C. E. Burkhead, T. J. Kuzelka, J. J. Morgan, John F. Marsh; machinery—Margaret F. Cannon; household equipment—M. Orshansky.

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The Balance Sheet of Agriculture, 1947

Under the direction of Norman J. Wall, *Head, Division of Agricultural Finance, Bureau of Agricultural Economics*

By A. S. Tostlebe, R. J. Burroughs, H. C. Larsen, L. A. Jones, H. T. Lingard, L. R. Hudson, and S. L. Yarnall

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SUMMARY ANALYSIS

Agriculture, viewed in its entirety, reached the year 1947 with assets of 111,209 million dollars, the largest in history (table 1). The huge wartime increases in the market valuations of farm real estate and other physical assets, and the extensive gains in money and in savings bonds, were followed by still further increases in all these items in 1946, the first full postwar calendar year. For only one major item was the wartime trend of the individual balance-sheet items reversed: Instead of decreasing during 1946, as it had in other recent years, agricultural debt increased. Even though debt did increase, the higher valuations of the assets were more than enough to offset this factor and the equities of proprietors in the farming business, including those of landlords and tenants, were the highest of all time (fig. 1).

Physical Assets

The physical assets used in agriculture—which include real estate, livestock, harvested crops of farmers, machinery and motor vehicles on farms, and household equipment—totaled 89,132 million dollars on January 1, 1947, as compared with 78,493 million dollars the year before. The comparable figure for January 1, 1940, before war activities became important, was only 48,830 million dollars. The increase of real estate valuations accounted for 24,962 million of the 40,302-million-dollar increase of physical assets since 1940.

TABLE 1.—*Comparative balance sheet of agriculture, United States, Jan. 1, 1940–47* [1]

Item	1940	1941	1942	1943	1944	1945	1946	1947	Net change			
									1940–47		1946–47	
ASSETS	*Million dollars*	*Million dollars*	*Million dollars*	*Million dollars*	*Million dollars*	*Million dollars*	*Million dollars*	*Million dollars*	*Per-cent*	*Million dollars*	*Per-cent*	*Million dollars*
Physical assets:												
Real estate	33, 642	33, 497	35, 331	37, 855	42, 532	46, 389	52, 114	58, 604	+74	+24, 962	+12	+6, 490
Non-real-estate:												
Livestock	5, 133	5, 325	7, 074	9, 642	9, 685	9, 012	9, 742	11, 979	+133	+6, 846	+23	+2, 237
Machinery and motor vehicles	3, 135	3, 241	3, 781	4, 573	5, 418	6, 235	6, 192	6, 889	+120	+3, 754	+11	+697
Crops, stored on and off farms [2]	2, 645	2, 944	3, 798	5, 110	6, 079	6, 388	6, 030	6, 894	+161	+4, 249	+14	+864
Household equipment	4, 275	4, 299	4, 386	4, 265	4, 276	4, 232	4, 415	4, 766	+11	+491	+8	+351
Financial assets:												
Deposits and currency	3, 900	4, 300	5, 300	7, 000	9, 100	10, 800	13, 700	15, 100	+287	+11, 200	+10	+1, 400
United States savings bonds	249	357	522	1, 184	2, 422	3, 950	4, 998	5, 371	+2, 057	+5, 122	+7	+373
Investment in cooperatives	826	875	953	1, 044	1, 140	1, 262	1, 417	1, 606	+94	+780	+13	+189
Total	53, 805	54, 838	61, 145	70, 673	80, 652	88, 268	98, 608	111, 209	+107	+57, 404	+13	+12, 601
LIABILITIES												
Real estate mortgages	6, 586	6, 491	6, 372	5, 951	5, 389	4, 933	4, 682	4, 777	−27	−1, 809	+2	+95
Non-real-estate debt:												
To principal institutions:												
Excluding loans held or guaranteed by Commodity Credit Corporation	1, 538	1, 673	1, 805	1, 667	1, 683	1, 619	1, 668	1, 955	+27	+417	+17	+287
Loans held or guaranteed by Commodity Credit Corporation	445	630	610	772	589	683	277	65	−85	−380	−77	−212

To others [3]	1, 455	1, 675	1, 748	1, 464	1, 180	1, 132	1, 170	1, 500	+3	+45	+28	+330
Total	10, 024	10, 469	10, 535	9, 854	8, 841	8, 367	7, 797	8, 297	−17	−1, 727	+6	+500
CAPITAL												
Proprietors' equities	43, 781	44, 369	50, 610	60, 819	71, 811	79, 901	90, 811	102, 912	+135	+59, 131	+13	+12, 101
Total, liabilities and equities	53, 805	54, 838	61, 145	70, 673	80, 652	88, 268	98, 608	111, 209	+107	+57, 404	+13	+12, 601

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[1] Revised series. The margin of error of the estimates varies with the items.

[2] Includes all crops held on farms and crops held in bonded warehouses as security for Commodity Credit Corporation loans. The latter on January 1, 1947, totaled 28 million dollars.

[3] Tentative. Includes individuals, merchants, dealers, and other miscellaneous lenders.

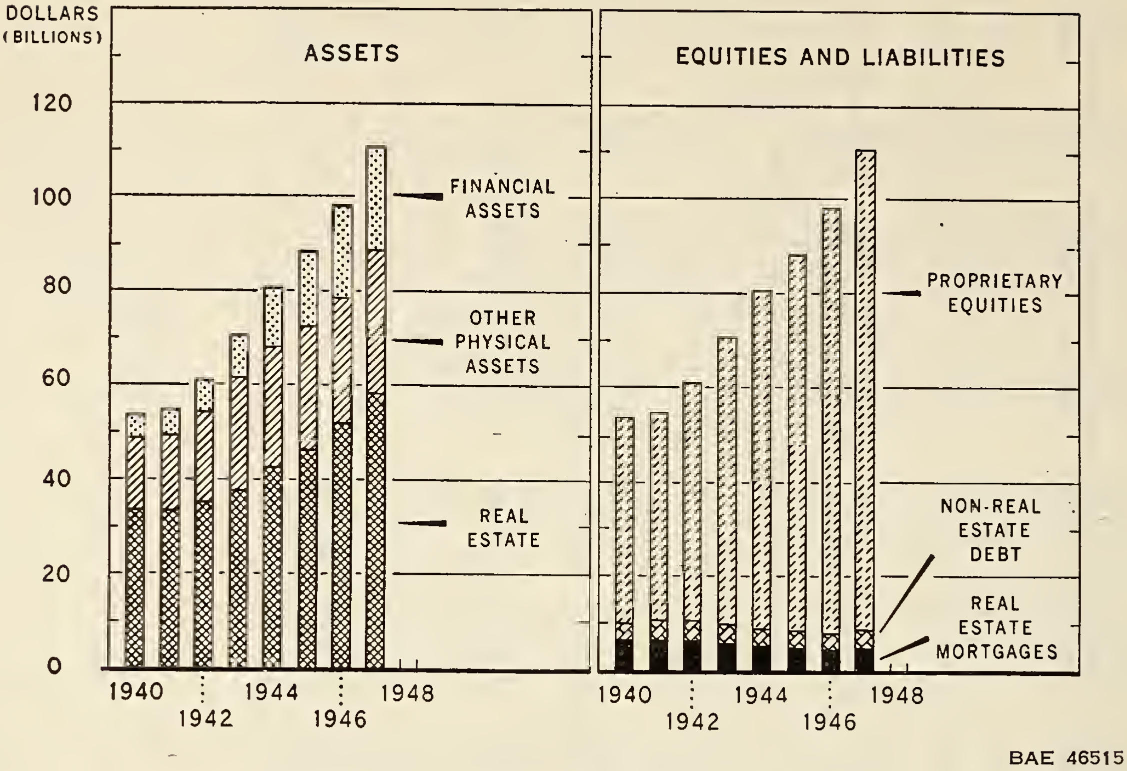

FIGURE 1.—COMPARATIVE BALANCE SHEET OF AGRICULTURE, JANUARY 1, 1940–47.

Throughout the late war period the assets of agriculture steadily increased and on January 1, 1947, totaled 111 billion dollars or 107 percent larger than on January 1, 1940. All classes of assets increased substantially, but the greatest percentage rise occurred in the financial assets. The growth in the value of physical items resulted primarily from higher prices rather than from an increase in quantity. Because of the expansion of assets and a decline in debt, the equities of farmers and of other owners of agricultural assets increased to a record 103 billion dollars at the beginning of 1947.

FINANCIAL ASSETS

The financial assets associated with agriculture reached 22,077 million dollars by January 1, 1947. During 1946, currency and deposits combined increased 10 percent, United States savings bonds 7 percent, and investments in cooperative associations 13 percent. Over the entire war period, despite the inflation in the values of the physical inventory that occurred during the war, these financial assets increased from 9 percent of total assets in 1940 to 20 percent in 1947.

The increase during 1946 in the financial assets was equivalent to 10 percent of the total net income from agriculture and Government payments and 13 percent of total return to farm operators, not counting income from nonagricultural sources. These ratios are slightly above those for 1940 but they are much below comparable ratios for the war years. The additions to financial assets are not necessarily net "saving" as they partly reflect deferred maintenance. They have tended to fluctuate in much the same way as have "savings" of the country as a whole.

LIABILITIES

For the first time since 1927 the farm-mortgage debt reversed its downward trend during 1946 and increased from 4,682 million dollars to 4,777 million dollars. Nevertheless, the ratio of total mortgage debt to the total value of farm real estate (both mortgaged and unmortgaged) fell somewhat. Non-real-estate debt also increased— that owed to the principal lending institutions on loans not secured by Commodity Credit Corporation guarantees rose from 1,668 million dollars in 1946 to 1,955 million dollars in 1947. But non-recourse-type loans made or guaranteed by the CCC decreased almost to the vanishing point during the year so that the net increase in the loans to individual farmers by principal institutions was only 75 million dollars. The non-real-estate loans made by miscellaneous lenders also are believed to have increased. Direct measures are unavailable, but an increase in such loans of perhaps 330 million dollars to a total of 1,500 million is indicated for January 1, 1947.

Equities of Proprietors

Equities or claims of proprietors in the physical and associated financial assets of agriculture reached 102,912 million dollars on January 1, 1947. These equities of proprietors constitute about 93 percent of the total claims to the assets, creditors' claims amounting to only 7 percent. In 1940, proprietors had only about an 81-percent equity. In the aggregate, farm operators, including tenants and croppers, are believed to have a much greater equity in the assets of agriculture than have landlords. Owner-operators have larger equities than have tenant-operators.

Interpretation of Balance-Sheet Gains

The large totals of the balance sheet fail to reflect the wide diversity of circumstances in which individual proprietors find themselves. Some gained during the year, others undoubtedly suffered a reduction in net worth. Those with considerable liquid assets often are those who are free of debt. Those with sizable indebtedness often are those with meager liquid resources. The aggregate statistics presented in the balance sheet for the industry as a whole fail to reveal these individual differences.

Although they are now valued much higher than in 1940, the physical assets of agriculture actually changed little in quantity over the war years. In some instances there were increases in physical amounts but in other cases decreases took place. The number of cows, bushels of corn, and acres of land cannot be added together to obtain a total quantity of physical assets, but when these items are expressed in dollar values, they become additive. Expressed in terms of constant prices, changes in physical assets, when weighted for the valuations of each asset item, become commensurate. To show the relative importance of these physical changes and to demonstrate that the larger balance-sheet totals are primarily the consequence of increased prices, table 2 depicts the physical assets at several dates, valued in terms of prices that prevailed on January 1, 1940.

TABLE 2.—*Physical assets valued in prices of 1940*

[In millions of dollars]

Items	1940	1946	1947
Real estate	33, 642	33, 642	33, 642
Non-real-estate:			
Livestock	5, 133	5, 402	5, 162
Machinery and motor vehicles	3, 135	3, 440	3, 607
Crops, stored on and off farms	2, 645	2, 523	2, 545
Household equipment	4, 275	4, 415	4, 766
Total	48, 830	49, 422	49, 722

The valuation of livestock, expressed in 1940 prices, was about the same on January 1, 1947, as on January 1, 1940. Harvested crops owned by farmers decreased from 2,645 million to 2,545 million dollars, implying a decrease in physical quantity. Machinery and motor vehicles increased from 3,135 million to 3,607 million dollars implying an increase in physical quantity. In the aggregate, these important non-real-estate assets valued in 1940 prices increased from 10,913 million to 11,314 million dollars. In the case of machinery, not only did the quantity apparently increase during the war but the available equipment was used more intensively and the newer models performed more effectively than the old. Thus agriculture continued its long-term trend toward greater mechanization throughout the war. It is still continuing this trend. The household-equipment figures are the same as those in the balance sheet (table 1) inasmuch as the inventory is not adjusted each year for price changes as in the case of the other physical assets. The non-real-estate physical assets, taken as a whole and assuming the validity of the method of adjusting for price changes, increased 6 percent between 1940 and 1947.

Small changes in the physical amounts of real estate used in farming probably occurred during the war. The Census of Agriculture, 1945, shows some variations in acreage, but these are mostly the result of a change in the method of reporting farm land. Soil has been depleted and buildings have depreciated. On the other hand, there have been such offsets as new buildings and improvements to old buildings, soil-conservation measures, greatly increased electrification of farm buildings, etc. The data in table 2 are based on the assumption that these various changes in the physical aspects of real estate are mutually compensating. This assumption may be misleading. Soil depletion, for example, is a social loss for generations to come. To attempt to compensate for this loss with building improvements is a conceptual device that has serious limitations; but notwithstanding these limitations, the 1940 valuation of real estate is used for all years shown.

The increases, even though minor, in the physical quantities of assets should mean that agriculture is in a slightly better position to take advantage of any active demand for its products. In periods of high productivity in the nonagricultural sectors of the economy, farmers can more readily sell the products from an enlarged capacity. Contrariwise, if demand for farm products fails, the larger capacity, although it often provides flexibility in the type of output, might cause larger total output. Thus, it would be a hindrance rather than an aid to profitable agriculture.

The physical assets of agriculture have changed in real terms far less than their dollar values in current prices indicate, but the liquid assets have gained less in purchasing power than the mere dollar amounts show (table 3). In the case of the liquid assets, especially bank deposits and currency, no price tag can be attached. Bank deposits and currency represent generalized purchasing power. The purchasing power of the deposits to the farmers who own them can be learned in a general way by reference to the prices of things the farmer buys. When prices rise, a given amount of money buys less goods and services. Between January 1, 1940 and 1947 the index of prices paid by farmers increased 85 percent. Consequently the 20,471 million dollars of currency, deposits, and bonds owned by farmers on January 1, 1947 would buy no more than 11,065 million dollars would have bought on January 1, 1940.

The larger liquid assets, to the extent not offset by higher prices farmers might have to pay, give farmers the right to buy more goods and services. If prices rise, these accumulations lose buying power; if prices fall, their holders gain. The liquid assets of farmers are in the nature of general claims on the economy as a whole. Most of the funds would be spent with the nonagricultural sector of the economy. Debts shown in the balance sheet for the most part are claims of the nonagricultural against the agricultural sector of the economy. Deposits and currency owned by farmers have increased at a more rapid rate than have those of people in general. In view of the increase of liquid assets of farmers relative to nonfarmers and the fall of debts of farmers, it may be safely said that agriculture has gained on balance against the rest of the national economy in the years since 1940. This gain is not so large when expressed in real terms after adjusting for the increase in prices farmers pay as it appears in unadjusted dollar amounts. In either case the gain has been substantial.

TABLE 3.—*Liquid assets valued in purchasing power of 1940*

[In millions of dollars]

Items	1940	1946	1947
Deposits and currency	3, 900	9, 085	8, 162
United States savings bonds	249	3, 314	2, 903
Total	4, 149	12, 399	11, 065

Increased totals of the balance sheet do not always represent increased welfare to farmers nor are all farmers affected in the same way. When considered in the light of what money will buy, the financial assets of 1947 are less useful to farmers than was the smaller dollar amount of such assets of the year preceding. Moreover, farmers who under other circumstances might sell one farm and buy another that would be better adapted to their needs are discouraged from doing so by capital-gains taxes on sales at higher valuations. The higher valuations of the physical assets may spell opulence to the individual farmer who had originally bought at a low price and who chooses this occasion to liquidate his business but it means far less to the many who continue in business.

FARM INCOME

The balance sheet of agriculture provides a cross-section view of the financial structure of agriculture at a given point of time. Net changes from year to year are reflected in successive balance sheets, but the income statements (table 4) most clearly reveal the intervening course of financial events. Hence, it is desirable that the income statement be considered briefly for the light it throws on changes in the comparative balance sheets.

With physical production somewhat above that of 1945, farmers received higher income in 1946 mainly because they sold their products at substantially higher prices. This was particularly true of the marketings of the last quarter of the year, after the lifting of many price controls. With the exception of truck crops, which averaged lower, on the average each class of crops and livestock sold for higher average prices in 1946 than in 1945.

Cash receipts of agriculture were at a higher level in 1946 than ever before. Receipts from crops and livestock each increased about 14 percent over receipts in 1945. Starting from 8,366 million dollars in 1940, cash receipts from farm marketings reached 21,517 million dollars in 1945 and 24,519 million dollars in 1946, an increase of 193 percent in 7 years. Each of the agricultural regions enjoyed higher cash receipts from farm marketings and Government payments in 1946 than in 1945 (fig. 2).

The physical volume of agricultural production for sale and for home consumption in 1946 equaled the record of 1944 and was slightly larger than in 1945 (table 5). It was almost a fourth higher than in 1940. The physical volume of marketings and home consumption of livestock was somewhat lower in 1946 than in 1945, but the production of crops for sale and home use exceeded any former record. Within the livestock group, reductions from the 1945 level occurred in meat animals, poultry and eggs, and dairy products. With respect to crops, there were increases in feed crops, food grains, tobacco, truck crops, fruits and tree nuts, vegetables, and sugar crops, but small decreases occurred in cotton lint and oil-bearing crops.

The nonlabor production costs of agriculture increased from 9,176 million in 1945 to 10,025 million dollars in 1946. Such costs, including taxes on farm property, increased all along the line. The 7-percent increase in feed was mostly because of the price factor. The increase of 22 percent in the expenditures for fertilizer and lime was partly from greater use and partly the result of an 11-percent rise in price. Interest on non-real-estate debt increased 11 percent, chiefly because of increased use of credit. Taxes on farm property increased 11 percent. Other nonlabor operating expenses increased 12 percent.

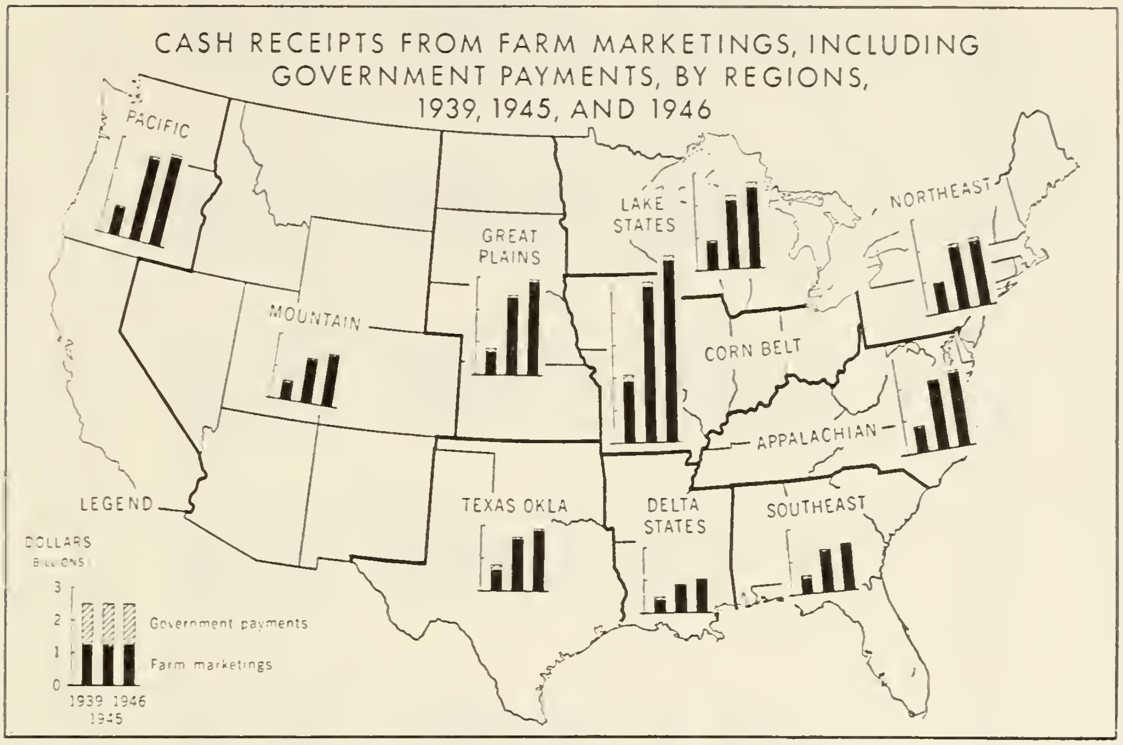

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Figure 2.—Cash receipts from farm marketings during 1946 were larger than in 1945 and in most regions they were more than twice those of 1939. The Corn Belt had the greatest volume of cash receipts during 1946, as in other years. The Delta States showed the least volume of any region. Government payments have accounted for a smaller proportion of total income payments during the last few years.

Table 5.—*Index of the volume of agricultural production for sale and for consumption in farm homes, 1914–21 and 1939–46*

World War I and postwar (1910–14=100)				World War II and postwar (1935–39=100)			
Year	All production	Crops	Livestock and products	Year	All production	Crops	Livestock and products
1914	104	111	98	1939	106	107	106
1915	104	107	102	1940	110	107	112
1916	100	91	106	1941	113	109	115
1917	103	99	106	1942	124	121	126
1918	109	104	112	1943	128	114	137
1919	110	102	114	1944	136	128	141
1920	111	115	107	1945	[1] 133	122	[1] 140
1921	100	90	109	1946	136	135	137

[1] Revised.

The increase in nonlabor production costs of agriculture between prewar 1940 and postwar 1946 was 113 percent. The percentage increase in various expenses during the 7-year period was: Feed, 204 percent; livestock purchased, 120 percent; fertilizer and lime,

TABLE 4.—*Comparative income statement for agriculture, United States, 1940–46* [1]

[In millions of dollars]

No.	Item	1940	1941	1942	1943	1944	1945	1946
	HOW NET INCOME WAS OBTAINED							
	Gross income from agriculture:							
1	Cash receipts from farm marketings	8, 366	11, 190	15, 389	19, 459	20, 371	21, 517	24, 519
2	Value of products retained on farms for home consumption	1, 254	1, 460	1, 781	2, 149	2, 192	2, 257	2, 636
3	Rental value of farm homes	624	658	702	755	820	889	978
4	Total	10, 244	13, 308	17, 872	22, 363	23, 383	24, 663	28, 133
	Nonlabor production costs:							
5	Feed bought	998	1, 089	1, 625	2, 137	2, 427	2, 845	3, 031
6	Livestock bought, except horses and mules	478	602	802	778	688	870	1, 051
7	Fertilizer and lime bought	261	292	352	423	476	510	621
8	Vehicle operation	568	633	735	851	942	1, 010	1, 024
9	Depreciation and maintenance	1, 096	1, 233	1, 402	1, 576	1, 867	2, 069	2, 210
10	Interest on non-real-estate debt [2]	212	235	230	198	181	188	208
11	Other operating expenses	637	699	890	1, 022	1, 098	1, 130	1, 263
12	Taxes on real estate and tangible personalty	446	457	461	472	495	554	617
13	Total	−4, 696	−5, 240	−6, 497	−7, 457	−8, 174	−9, 176	−10, 025
14	Adjustment for changes in inventory [3]	+96	+374	+928	+536	−402	−439	−19
15	Total net income from agriculture	5, 644	8, 442	12, 303	15, 442	14, 807	15, 048	18, 089
16	Government payments [4]	+766	+586	+697	+672	+804	+769	+800
17	Total net income from agriculture and Government payments	6, 410	9, 028	13, 000	16, 114	15, 6[illegible]	15, 817	18, 889

See footnotes at end of table.

TABLE 4.—*Comparative income statement for agriculture, United States, 1940–46* [1]

[In millions of dollars]

No.	Item	1940	1941	1942	1943	1944	1945	1946
	HOW NET INCOME WAS DISTRIBUTED							
	Return to labor:							
18	Hired labor (cash and perquisites)	1, 020	1, 238	1, 626	2, 009	2, 184	2, 299	2, 536
19	Farm family labor	(5)	(5)	(5)	(5)	(5)	(5)	(5)
20	Operators' labor	(5)	(5)	(5)	(5)	(5)	(5)	(5)
21	Total	(5)	(5)	(5)	(5)	(5)	(5)	(5)
	Net return to investment in farming:							
	Return to capital—							
22	Net rent and Government payments to landlords not living on farms [6]	460	656	964	1, 135	1, 194	1, 193	1, 255
23	Farm-mortgage interest	[7] 293	286	273	247	236	228	228
24	Capital return to operators	(5)	(5)	(5)	(5)	(5)	(5)	(5)
25	Total	(5)	(5)	(5)	(5)	(5)	(5)	(5)
	Return to management—							
26	Enterprisers' profit and loss	(5)	(5)	(5)	(5)	(5)	(5)	(5)
27	Total to operators [8]	4, 637	6, 848	10, 137	12, 723	11, 997	12, 097	14, 870
17	Total net income from agriculture and Government payments	6, 410	9, 028	13, 000	16, 114	15, 611	15, 817	18, 889

[1] Revised series. The margin of error of the estimates varies with the items.

[2] Includes an allowance for interest on an indeterminate amount of miscellaneous debt.

[3] Market value, in terms of prices at the end of the year, of the increase or decrease in the physical quantities of crops on farms for sale or of numbers of livestock whether or not for sale.

[4] Includes some payments that are comparable to certain items included in item 1. Thus receipts from loans made or guaranteed by CCC are included in item 1, whereas wartime consumers' price subsidies to dairy and other farmers are included in item 16.

[5] Unavailable.

[6] After subtraction of estimated payments for taxes, mortgage interest, and other expenses paid by such landlords.

[7] Tentative.

[8] Reflects the adjustment for changes in inventory values and represents the difference between items 17 and the sum of items 18, 22, and 23.

Based on NET FARM INCOME AND PARITY, 1940–46, *The Farm Income Situation*, B. A. E., June–July 1947.

138 percent; vehicle operation, 80 percent; depreciation and maintenance, 102 percent; taxes on farm property, 38 percent; and other operating expenses, 98 percent. Interest on non-real-estate debt decreased 2 percent because of the smaller amount of credit in use at the later date.

In general, prices received by farmers for their products fluctuate more readily than do most of the prices they pay. Hence, the high level of costs built up during the war would prove to be troublesome to farmers if agricultural prices and cash receipts should recede. Of course, some costs are more flexible than others. Prices of feed probably would fall with any decline in the demand for agricultural products in general. Expenditures for operating vehicles may increase in the future, however, partly because of a greater use of vehicles, although the replacement of obsolete equipment with new and improved models that are more efficient to operate should be an offsetting factor. Expenditures for fertilizer and lime may continue to gain as farmers increasingly recognize their advantages. Expenditures for maintaining farm structures, machinery, and equipment, may increase because so much maintenance has been deferred. The price structure for many of these items is somewhat inflexible. Interest and property taxes ordinarily change but slowly.

Agriculture produced a net income of 18,089 million dollars in 1946 as compared with 15,048 million in 1945. The net income produced by agriculture is somewhat comparable to the "value added" by manufacturing industries. If taxes and interest on non-real-estate debt were added, it would represent the values produced by agriculture for distribution among all the factors of production.[1] Including Government payments to agriculture, the total net income received by the industry was 18,889 million dollars in 1946 and 15,817 million in 1945.

Of the total net income received by agriculture in 1946, hired farm labor received 2,536 million dollars, landlords received 1,255 million, including some Government payments, creditors received 228 million for mortgage interest, and the remainder of 14,870 million, including Government payments, was received by owner- and tenant-operators. Operators received substantially more in 1946 than in 1945. The amounts received by landlords as rents and by hired laborers as wages and perquisites (considering their present valuations) were also higher, but the interest received by mortgage holders was the same in both years.

Over the 7 years 1940–46, the net income received by agriculture increased from 6,410 to 18,889 million dollars. The share of this net income going to operators increased from 4,637 million dollars in 1940 to 14,870 million in 1946, an increase of 221 percent. Considerable margin thus remains in the favor of farm operators in spite of high production costs. Obviously, should the cash receipts become smaller and should expenses hold nearer present levels, farm operators would be placed in a much less favorable position than they are at present.

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[1] The recently revised figures on national income by the Department of Commerce show income from farms to be essentially the return to operators, but there are small technical differences between the Commerce and the Bureau of Agricultural Economics data.

The influence of the years of high income on the balance sheet of agriculture has been of both direct and indirect character. Directly, some of the income has accumulated in the form of various assets, particularly the financial assets. Indirectly, the influence of the high income received during and since the war and the income prospects for the future, based partly on prospective Government support for at least 1947 and 1948, has been to cause a bidding up of valuations of income-producing farm property.

During the 7-year period 1940–46, inclusive, farm operators received net cash receipts estimated at 66,661 million dollars. These figures do not include the 7,334 million dollars of cash wages of farm laborers living on farms, nor do they include the substantial receipts of nonagricultural income of people living on farms.

How did this income affect the balance sheet? Estimated debt payments during the period (excluding an allowance for mortgage-debt payments by nonoperators) were about 1,125 million dollars. Increases in holdings of United States savings bonds and equities in cooperative associations totaled about 5,902 million dollars. Increases in currency and deposits owned by the farm population were about 11,200 million dollars. Besides these cash outlays and accumulations affecting the assets and liabilities, the balance sheet was influenced also by replacements and additions to buildings and machinery, the cash expenditures for which totaled about 11,962 million dollars during the period, and by similar outlays for furniture and household equipment. Farm families also paid perhaps as much as 1,890 million dollars in Federal income taxes as well as substantial State taxes—amounts which obviously could not accumulate in the assets. The remaining cash received by farmers was undoubtedly used for living expenses and other transactions. A substantial amount is known to have been used for buying land from insurance companies, Federal land banks, and other nonfarm owners.

The foregoing summary of the financial position and income of agriculture lacks much of the detail required for a more complete picture. Important details with respect to each of the asset and equity items follow. In the closing section is a discussion of the significance of the financial structure of agriculture in the light of a broad review of its relation to the entire economy. Assets are considered first.

THE ASSET ITEMS

The assets treated in the Balance Sheet of Agriculture are divided into two major classes—physical assets and financial assets. The physical assets in turn are divided into "real estate" and "non-real-estate." The real estate inventory is shown as an aggregate item, as information for the separate values of land, service buildings, and houses is not available. The non-real-estate assets are classified as "livestock," "machinery and motor vehicles," "crops stored on and off farms," and "household equipment." The financial assets are subdivided into "deposits and currency," "United States savings bonds," and "investment in cooperatives." The deposits include both demand and time deposits. The United States savings bonds and the investment of farmers in various cooperative enterprises such as marketing associations complete the financial items for which data are available. The first asset shown in the balance sheet is real estate.

TABLE 6.—*Farm real estate: Estimated value of farm land and buildings, by regions, 1915–22 and 1940–47* [1]

WORLD WAR I AND POSTWAR

[In millions of dollars]

Year	United States [2]	North-east [3]	Appa-lachian [4]	South-east [5]	Lake States [6]	Corn Belt [7]	Delta States [8]	Great Plains [9]	Texas-Okal-homa	Moun-tain [10]	Pacific [11]
1915	39, 597	3, 080	2, 848	1, 258	3, 947	13, 425	905	6, 185	2, 956	1, 801	3, 191
1916	42, 271	3, 142	3, 147	1, 348	4, 406	14, 407	1, 030	6, 576	3, 032	1, 886	3, 297
1917	45, 531	3, 339	3, 459	1, 467	4, 823	15, 124	1, 150	7, 037	3, 382	2, 109	3, 640
1918	49, 986	3, 448	3, 939	1, 708	5, 333	16, 383	1, 326	7, 778	3, 891	2, 335	3, 845
1919	54, 539	3, 525	4, 506	2, 142	5, 676	17, 677	1, 514	8, 702	4, 136	2, 651	4, 011
1920	66, 316	3, 920	5, 299	2, 777	6, 926	21, 978	2, 017	10, 504	5, 064	3, 163	4, 669
1921	61, 477	3, 739	4, 673	2, 277	6, 914	20, 284	1, 526	9, 942	4, 597	2, 844	4, 680
1922	54, 017	3, 603	4, 143	1, 795	6, 333	16, 948	1, 421	8, 665	3, 921	2, 612	4, 576
WORLD WAR II AND POSTWAR											
1940	33, 642	2, 780	3, 457	1, 552	3, 544	9, 031	1, 286	3, 555	3, 421	1, 780	3, 237
1941	33, 497	2, 760	3, 400	1, 580	3, 480	9, 029	1, 298	3, 452	3, 415	1, 819	3, 263
1942	35, 331	2, 809	3, 526	1, 627	3, 650	9, 746	1, 380	3, 598	3, 614	1, 940	3, 441
1943	37, 855	2, 973	3, 772	1, 718	3, 877	10, 394	1, 492	3, 945	3, 806	2, 122	3, 755
1944	42, 532	3, 111	4, 129	1, 929	4, 269	11, 721	1, 611	4, 617	4, 246	2, 448	4, 450
1945	46, 389	3, 328	4, 532	2, 153	4, 467	12, 463	1, 783	5, 143	4, 681	2, 756	5, 083
1946	52, 114	3, 581	5, 329	2, 387	5, 003	14, 088	1, 995	5, 646	5, 244	3, 086	5, 753
1947	58, 604	4, 017	6, 157	2, 764	5, 649	15, 777	2, 297	6, 417	5, 737	3, 418	6, 372

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[1] For the years 1920, 1940, and 1945 values are from Census. Values in intercensal years derived from index of land values per acre and adjusted for changes of acreage of land in farms.

[2] Because of rounding, figures may not add to exact totals.

[3] Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

[4] Delaware, Maryland, Virginia, West Virginia, North Carolina, Kentucky, Tennessee, and the District of Columbia.

[5] South Carolina, Georgia, Florida, and Alabama.

[6] Michigan, Wisconsin, and Minnesota.

[7] Ohio, Indiana, Illinois, Iowa, and Missouri.

[8] Mississippi, Arkansas, and Louisiana.

[9] North Dakota, South Dakota, Nebraska, and Kansas.

[10] Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada.

[11] Washington, Oregon, and California.

FARM REAL ESTATE

Total farm real estate in the United States on January 1, 1947, had an estimated value of 58.6 billion dollars.[2] This represents about 53 percent of the assets listed in the balance sheet of agriculture. The increase during the year 1946 was 6.5 billion dollars (table 6).

The estimated value per acre increased 12 percent between March 1, 1946, and March 1, 1947. This compares with a 13-percent increase for the year ended March 1946 and increases of 11 and 15 percent, respectively, for the years ended March 1945 and March 1944. In the year ended March 1947, increases took place in all regions and ranged from 10 percent in the Texas-Oklahoma region to 16 percent in both the Appalachian and Southeast regions.

The index of value per acre (1912–14=100) for the United States as a whole was 159 on March 1, 1947. This was only 11 points lower than the index of 170 in 1920—the peak following World War I. In the Northeast, Appalachian, and Pacific regions average values per acre were considerably higher in 1947 than in 1920. Values in the Southeast, the Delta States, and the Mountain region were about the same in these 2 years. Elsewhere, average values per acre at the beginning of 1947 were still somewhat lower than for the boom period after World War I (fig. 3). In the Great Plains region, where the increase has been smallest, values per acre in 1947 were only 65 percent of those in 1920.

Although the 1947 values for the United States were at a lower level on the average than in 1920, the percentage rise during the last war period has been greater than for World War I. Measured from the prewar years of 1935–39, land values have increased 92 percent compared with a 70-percent rise from 1912–14 to the peak in 1920. But the increase in land values during this war period was smaller in relation to the increase in net land returns. In 1914, net returns were 4.3 percent of land values. This rate of return then rose every year, reaching 5.6 percent in 1917 and 7.4 percent in 1918 (fig. 4). During the following year returns declined to 7.1 percent of values and by 1922 had dropped to 3.6 percent.

In contrast, rates of return in the recent war period rose from 4.9 percent in 1939 to 9.4 percent in 1943. Although rates of return have declined somewhat during the last 3 years, they still are substantially above the highest rates received during World War I. Rates of return not only advanced more in World War II but they have remained at the higher level for a much longer time. In the first period the high rates occurred mainly in the 2 years of 1918 and 1919. In the current period the high returns have been continuous for the last 5 years.[3]

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[2] During the last year, data on the value of farm real estate as obtained in the 1945 Census of Agriculture became available. The census value of farm real estate for 1945 was 46.4 billion dollars as compared with the estimate of 50.3 billion dollars previously made by the Bureau of Agricultural Economics. On the basis of the more complete census data, the real estate value series has been revised for the years 1941–46.

[3] For further discussion of net land returns, *see* REGAN, M. M. and JOHNSON, A. R., THE FARM REAL ESTATE SITUATION 1945–46, U. S. Dept. Agr. Cir. 754. 45 pp. 1947.

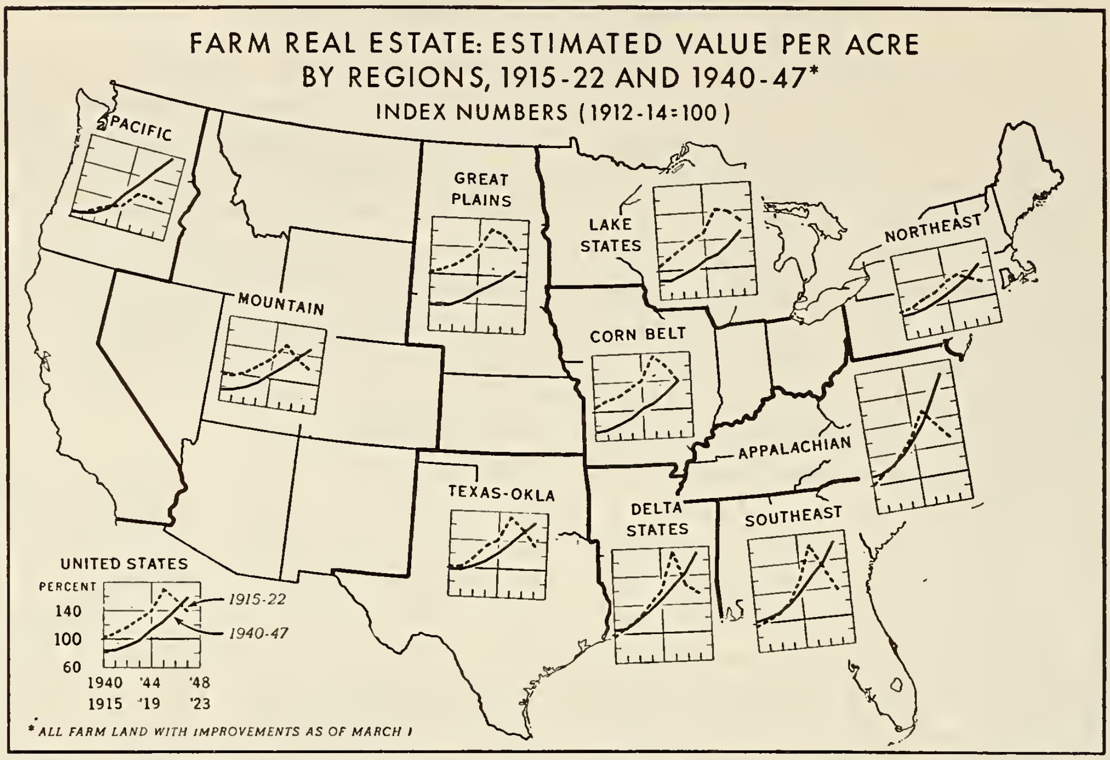

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Figure 3.—The rise in value of farm real estate during the World War II period although it started from a lower level, has been at about the same average rate as in World War I. Values rose to about 170 percent of the 1912–14 level by the beginning of 1920. By March 1947 the percentage reached 159. Values are much higher now than at the peak following World War I in the Northeast, Appalachian, and Pacific regions. On the other hand, the values for the Lake States, the Corn Belt, and the Great Plains are much lower than in January 1920.

The above comparison would indicate that net incomes were not capitalized into land values to the same extent during World War II as in World War I. This tendency toward conservative valuations is apparent despite the more inflationary farm-mortgage interest rate, which averaged 4.8 percent in 1946 compared with 6.1 percent in 1919. These factors may suggest that buyers in the recent period have been more inclined to regard the high wartime and immediate postwar incomes as temporary. It is probable that in many areas land values have risen to levels that could not long be maintained in event of a substantial decline in agricultural prices or production. But, to the extent that farmers use restraint in bidding up land values, future difficulties similar to those of the early twenties will be lessened.

Farm land with high value per acre on January 1, 1947, was largely located in the Northeast, the Lake States, the Corn Belt, and the Pacific regions (fig. 5). Lowest values per acre were in the Mountain and Great Plains regions. There, however, the average number of acres per farm is considerably larger than in most other parts of the country. In the deep South where values also are relatively low, the size of farms is relatively small.[4]

Major influences in the farm real estate market continue to be the record high farm income, favorable income prospects—for 1947 at

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[4] Farms as defined by the Census. In the South, units operated by sharecroppers are defined as farms.

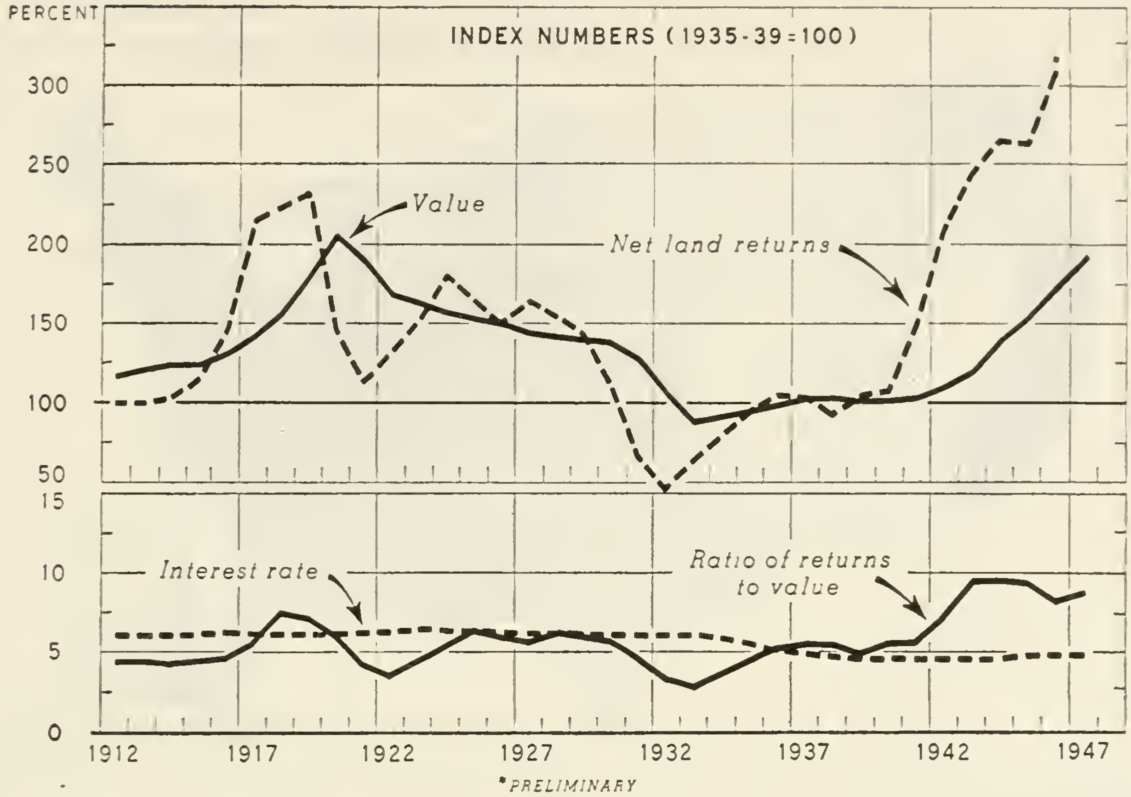

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FIGURE 4.—FARM REAL ESTATE: NET LAND RETURNS, VALUE PER ACRE, RATIO OF RETURNS TO VALUE, AND FARM-MORTGAGE INTEREST RATES, UNITED STATES, 1912–47

Net land returns per acre during the last 4 years have been significantly higher than the World War I peak reached in 1919, although the levels of return before both World Wars were approximately the same. Starting from lower levels, average values per acre during the current period have now increased more than during the World War I period. The ratio of returns to value decreased during the last 3 years because values have been rising faster than net returns, but the level is still higher than it was for any year before 1942. In the World War II period, land returns not only advanced to higher levels than in World War I but they have stayed up much longer than in the World War I period. In 1943 and 1944 the ratio of net land returns to land values was more than twice the farm-mortgage interest rates and the ratio has remained high despite marked increases in land values and slight increases in interest rates. Moreover, with interest rates at lower levels, the inflationary pressure of these favorable land returns is much greater than in World War I.

least—large accumulations of liquid funds, and a plentiful supply of credit. The volume of farm sales remains at a record level. For the year ended March 15, 1947 there were 57.7 voluntary transfers for every 1,000 farms. This rate of sales activity is highest for the current war period and higher than in 1919, which was the peak year of the World War I period. To date, there is little evidence that the rise of farm-land values is ending except possibly in some of the Southeastern and far Western States, but the feeling is apparently becoming rather general that the peak in values is near, and that any decline in prices of farm products will stop the rise and may result in lower farm values.

Data recently released from the 1945 Census of Agriculture show some of the trends in the size and ownership of the Nation's farm plant that took place between 1940 and 1945. The total acreage in farm land, as reported by the Census, changed from 1,061 million acres in 1940 to 1,142 million acres in 1945. Most of this reported

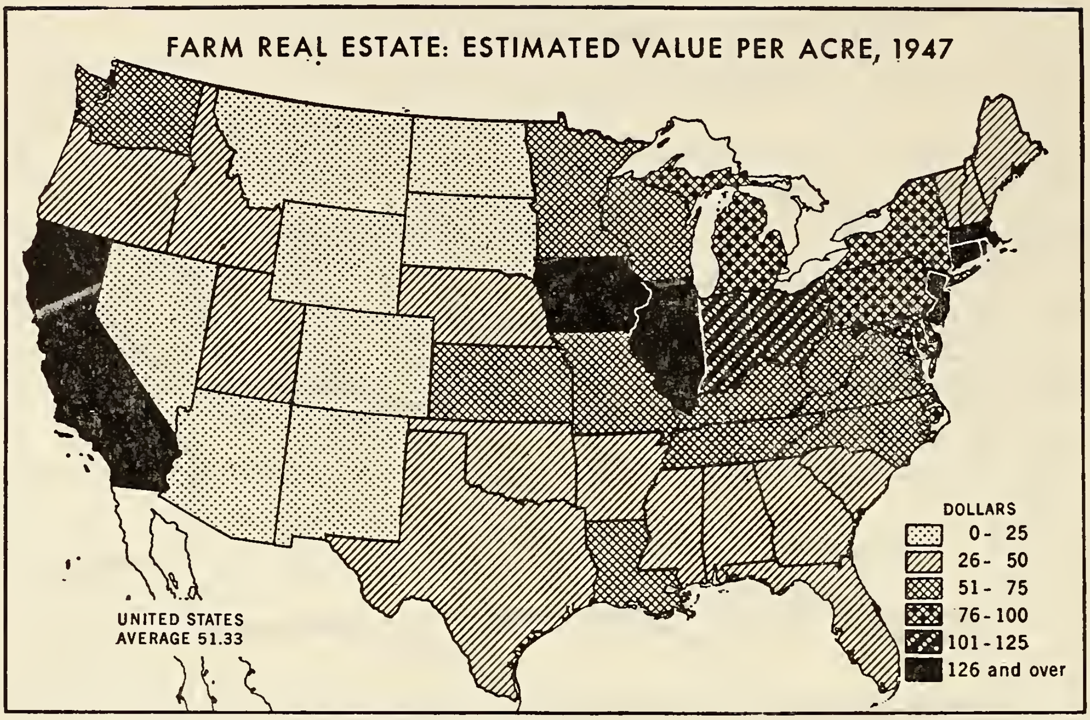

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FIGURE 5.—The value per acre of farm real estate is greatest in regions where productivity is high and where the land is favorably located with respect to markets. The land of highest average value lies in the Corn Belt, in California, and in some of the Northeastern States. In the Mountain region, despite the high value of some irrigated areas, the preponderance of arid land accounts for the fact that land in that region has the lowest value per acre of any in the country.

increase, particularly in the Western States, does not represent more land used in agriculture but a change in the method of reporting leased land which was formerly classified as open range. Changes revealed by the Census in the number of farms, acres per farm, and ownership of the farms have been much more significant.

For the United States as a whole the average farm was 20 acres larger in 1945 than 5 years before. The departure of large numbers of farm operators for the armed forces or for urban jobs during the war, combined with rapid strides in mechanization and other technological advances, further encouraged the operation of large farms—a development that began long before the war. Large farms frequently became even larger by absorbing other farm units and in some instances small farms were combined into larger and more economical units. The total number of farms was about 5,860,000 in 1945, or 237,000 less than in 1940.

During the war the number of farms operated by tenants definitely declined. In 1945 there were 1,858,000 tenant farms, a half million fewer than in 1940 and a million fewer than in the thirties. Farms operated by tenants and croppers made up 32 percent of all farms in 1945, compared with about 39 percent in 1940. Tenancy declined in all regions with the largest decrease in the South where tenancy continues to be more prevalent than elsewhere. The proportion of farms operated by tenants in the South was 40 percent, whereas in the North and West the proportion was 25 and 15 percent respectively. The increase in owner-operator farms and the decrease in tenancy between 1940 and 1945 was chiefly stimulated by the sharp rise in farm income that enabled many tenants to buy land. Also, many of the thousands of farmers who left for the armed forces or for industrial jobs were either tenants or young men who would have been likely to start farming as tenants. Little information is available that would indicate changes in tenure since 1945, but it is believed that the proportion of tenancy is still low, relative to 1940. Some veterans probably have returned to farming as tenants, but a large proportion of the farmers who left for war jobs are believed to have continued in nonfarm employment.

The value of farm units in the different tenure classes is indicated by the Census of Agriculture. For the United States, the average value of farms operated by tenants in 1945 was nearly $7,000, or about $600 larger than the average value of farms operated by full owners. The average farm of part-owners [5] was valued at slightly over $15,000, whereas farms operated by managers averaged about $60,000 in value. With regard to the distribution of the total value of all farm land in the United States, 58 percent was owned by those who farmed it. The remaining farm land, some of which was owned by nonfarm investors, was operated by managers and tenants (table 7).[6] In the Northeast, farms operated by owners represented about 78 percent of the total farm value compared with only 46 percent in the Great Plains. In the Corn Belt about half the value was represented by

TABLE 7.—*Farm real estate: Value by tenure of operator and by regions, Jan. 1, 1945* [1]

Region	Operated by owner [2]		Operated by tenant or manager [3]		Total	
	Amount	Percent	Amount	Percent	Amount	Percent
	Million dollars		*Million dollars*		*Million dollars*	
Northeast	2, 594	77. 9	734	22. 1	3, 328	100
Appalachian	3, 129	69. 0	1, 404	31. 0	4, 533	100
Southeast	1, 318	61. 2	835	38. 8	2, 153	100
Lake States	2, 982	66. 8	1, 485	33. 2	4, 467	100
Corn Belt	6, 136	49. 2	6, 327	50. 8	12, 463	100
Delta States	998	56. 0	785	44. 0	1, 783	100
Great Plains	2, 362	45. 9	2, 780	54. 1	5, 142	100
Texas-Oklahoma	2, 488	53. 2	2, 193	46. 8	4, 681	100
Mountain	1, 663	60. 3	1, 093	39. 7	2, 756	100
Pacific	3, 335	65. 6	1, 748	34. 4	5, 083	100
United States	27, 005	58. 2	19, 384	41. 8	46, 389	100

[1] CENSUS OF AGRICULTURE, 1945.
[2] Includes value of owned portion of part-owner farms.
[3] Includes value of rented portion of part-owner farms.

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[5] As defined by the Census, a part-owner is one who owns part and rents part of the farm operated.

[6] The value of the owned portion of part-owner farms was classed as owner-operated and the value of the rented portion was included with the value of farm land operated by managers and tenants.

farms operated by owners and the other half by farms operated by managers and tenants. In the Corn Belt and the Great Plains the heavy capital outlay needed for land, equipment, and livestock makes it relatively difficult for farmers to become farm owners. However, well-to-do farmers and investors are attracted to the ownership of land to be operated by others.

Non-Real-Estate Physical Inventories

LIVESTOCK ON FARMS JANUARY 1[7]

The value of livestock on farms January 1, 1947, is estimated at $11,978,850,000.[8] This represents an increase of 2.2 billion dollars, or 23 percent, over a year earlier. It also represents the highest value of the livestock inventory on record at the beginning of any year, in spite of a decline in the estimated number of animals of each species.

For many classes of livestock the value per head surpassed the high prices that followed World War I. For instance, the peak first-of-the-year prices reached for "all cattle" and for hogs immediately after World War I were recorded for January 1, 1919, when all cattle were valued at $54.65 per head and hogs at $22.18 per head. Such values were considerably below those recorded for January 1, 1947, when all cattle reached $97.40 per head and hogs $36 per head. Even the value per head of horses and mules, which had been declining steadily for several years, turned upward somewhat during 1946 (table 8).

The record high prices of livestock despite large marketings were the result of an exceptional demand incident to high consumer incomes. Consumption of meat averaged 153 pounds per person during both 1945 and 1946, compared with an annual average of 133 pounds in the period 1937–41. Foreign demand for meat was also strong during 1946 but the quantity exported was noticeably below that for 1945.

The largest percentage increase during the year in total value of any class of livestock on farms occurred in the case of hogs. On January 1, 1947 the value of hogs was nearly 40 percent greater than on January 1, 1946, even though the numbers on farms dropped by 4.4 million head. This reflects the fact that the average value of hogs was $36 per head on the later date, whereas a year before it was $23.90. The higher value per head on January 1 is partly explained by a somewhat larger proportion of heavier hogs. If the number of hogs on farms January 1, 1947 had been priced at the 1946 value per head, the current total inventory value of hogs would have been 7 percent less than a year earlier instead of 40 percent more.

The influence of wartime prices is indicated when the 1940 value of $7.78 per head is applied to the number of hogs on farms January

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[7] The data for livestock and poultry for the period 1940–45 shown in this balance sheet are revisions of those previously published. They reflect the new level of livestock numbers on farms January 1, 1945, as estimated in the light of an appraisal of the reports of the 1945 Census of Agriculture. A discussion of the changes and a tabulation showing the original and revised estimates by States and by years appears in a release "Revised Estimates, 1940–45, Livestock and Poultry on Farms January 1, Number, Value Per Head, and Total Value, by States," Bur. Agr. Econ., February 1947.

[8] United States Bureau of Agricultural Economics, Crop Reporting Board, livestock on farms. January 1, released February 18, 1947. [Processed.]

1, 1947. The inventory value thus obtained would have been 443 million dollars, or only slightly more than one-fifth of the current value.

The reduction in the number of hogs on farms is largely attributed to a fall pig crop 11 percent smaller than a year earlier and to greater fall marketings that were due to higher prices for hogs. The smaller fall pig crop was partly the result of an unfavorable hog-corn ratio that developed in early summer. In the middle of May, the Office of Price Administration permitted an increase in feed prices and later such prices were released from controls entirely. The immediate effect was a greater increase in the price of corn than in the price of hogs. In the fall, after the removal of the ceilings on hogs and pork, however, the price of hogs rose sharply and more than offset the previous rise in corn prices. This not only increased the hog-corn ratio to unprecedented heights; it also resulted in a sharp increase in hog marketings. The strong demand that led to this increase was evidenced by the rise in per capita consumption of pork from 65.9 pounds in 1945 to 75.7 pounds in 1946, although exports declined from 896 million pounds in 1945 to 497 million in 1946.

The value of cattle on farms January 1, 1947, presents a similar picture. This figure was 26 percent larger on January 1 of 1947 than a year earlier but cattle numbers were down about 1.4 million head. The current value, therefore, reflects the 28-percent increase in the value per head.

The decline in all cattle numbers appears to be the continuation of a cyclical downward movement that started after a peak in 1945 (fig. 6). Cattle marketings were accelerated after OPA price ceilings were removed in 1946, but the price of beef increased, primarily as a result of active demand. Per capita consumption of beef in 1946 averaged 60.5 pounds, as compared with 58.9 pounds in 1945 and an annual average of 55.7 pounds during the period 1937–41. Exports of dressed beef increased from 293 million pounds in 1945 to 616 million in 1946.

The value of all sheep on farms January 1, 1947, increased 18 percent over the previous year. The 32.5 million stock sheep on farms at the beginning of 1947 is only 71 percent of the average number for the 10 years 1936–45, and is the smallest on the record which goes back to 1867. The declining inventory numbers of sheep on farms is attributed chiefly to the competitive income advantage of other types of livestock and to a general shortage of suitable labor. This competitive advantage obtained in spite of relatively high wool prices. (Between 1943 and 1947 the Commodity Credit Corporation had a wool-purchasing program which stabilized prices of wool at an average of around 42 cents per pound.)

The decrease in numbers of sheep occurred both in range and farm flocks, but it appears to have taken place mainly as a result of a marked decline in the number of farms keeping sheep. Since January, the prospects of higher prices of sheep seem to be arresting the sharp decline in numbers, as later information indicates a reduction in the marketings of breeder ewes. Per capita consumption of lamb and mutton decreased from 7.2 pounds in 1945 to 6.7 pounds in 1946, which equals the annual average that obtained in 1944 and during the

TABLE 8.—*Livestock on farms: Number, value per head, and total value, Jan. 1, 1940–47* [1]

NUMBER ON FARMS

[In 1,000 head]

Class of livestock	1940	1941	1942	1943	1944	1945	1946	1947
Horses	10, 444	10, 193	9, 873	9, 605	9, 192	8, 715	8, 053	7, 251
Mules	4, 034	3, 911	3, 782	3, 626	3, 421	3, 235	3, 010	2, 773
Cattle	68, 309	71, 755	76, 025	81, 204	85, 334	85, 573	82, 434	81, 050
Milk cows	24, 940	25, 453	26, 313	27, 138	27, 704	27, 770	26, 695	26, 100
All sheep	52, 107	53, 920	56, 213	55, 150	50, 782	46, 520	42, 436	38, 571
Stock sheep [2]	46, 266	47, 441	49, 346	48, 196	44, 270	39, 609	35, 599	32, 542
Hogs	61, 165	54, 353	60, 607	73, 881	83, 741	59, 331	61, 301	56, 901
Chickens	438, 288	422, 841	476, 935	542, 047	582, 197	516, 497	530, 203	475, 442
Turkeys	8, 569	7, 193	7, 485	6, 600	7, 429	7, 203	8, 493	6, 632

FARM VALUE PER HEAD

	1940	1941	1942	1943	1944	1945	1946	1947
Horses	$77. 30	$68. 20	$64. 70	$79. 80	$78. 60	$64. 90	$57. 40	$59. 20
Mules	116. 00	107. 00	107. 00	127. 00	143. 00	134. 00	133. 00	141. 00
Cattle	40. 60	43. 20	55. 00	69. 30	68. 40	66. 90	76. 20	97. 40
Milk cows	57. 30	60. 90	77. 90	99. 50	102. 00	99. 40	112. 00	145. 00
All sheep	6. 31	6. 73	8. 60	9. 66	8. 71	8. 57	9. 69	12. 63
Stock sheep [2]	6. 35	6. 77	8. 66	9. 68	8. 68	8. 45	9. 57	12. 20
Hogs	7. 78	8. 34	15. 60	22. 50	17. 50	20. 60	23. 90	36. 00
Chickens	0. 605	0. 654	0. 833	1. 04	1. 18	1. 21	1. 27	1. 44
Turkeys	2. 14	2. 26	3. 08	4. 47	5. 33	5. 78	5. 75	6. 47

See footnotes at end of table.

TABLE 8.—*Livestock on farms: Number, value per head, and total value, Jan. 1, 1940–47* [1]

TOTAL FARM VALUE

[In millions of dollars]

	1940	1941	1942	1943	1944	1945	1946	1947
Horses	808	695	638	766	723	565	462	429
Mules	467	419	406	462	490	434	401	390
Cattle	2, 770	3, 103	4, 180	5, 625	5, 837	5, 722	6, 280	7, 898
Milk cows	1, 428	1, 550	2, 049	2, 701	2, 830	2, 761	2, 994	3, 788
All sheep	329	363	484	533	442	399	411	487
Stock sheep [2]	294	321	427	466	384	335	341	398
Hogs	476	453	945	1, 662	1, 467	1, 224	1, 468	2, 048
Chickens	265	276	398	564	686	626	671	684
Turkeys	18	16	23	30	40	42	49	43
Total of seven species	5, 133	5, 325	7, 074	9, 642	9, 685	9, 012	9, 742	11, 979

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[1] Data for 1940–46 are a revised series.

[2] Includes all sheep and lambs not on feed for market.

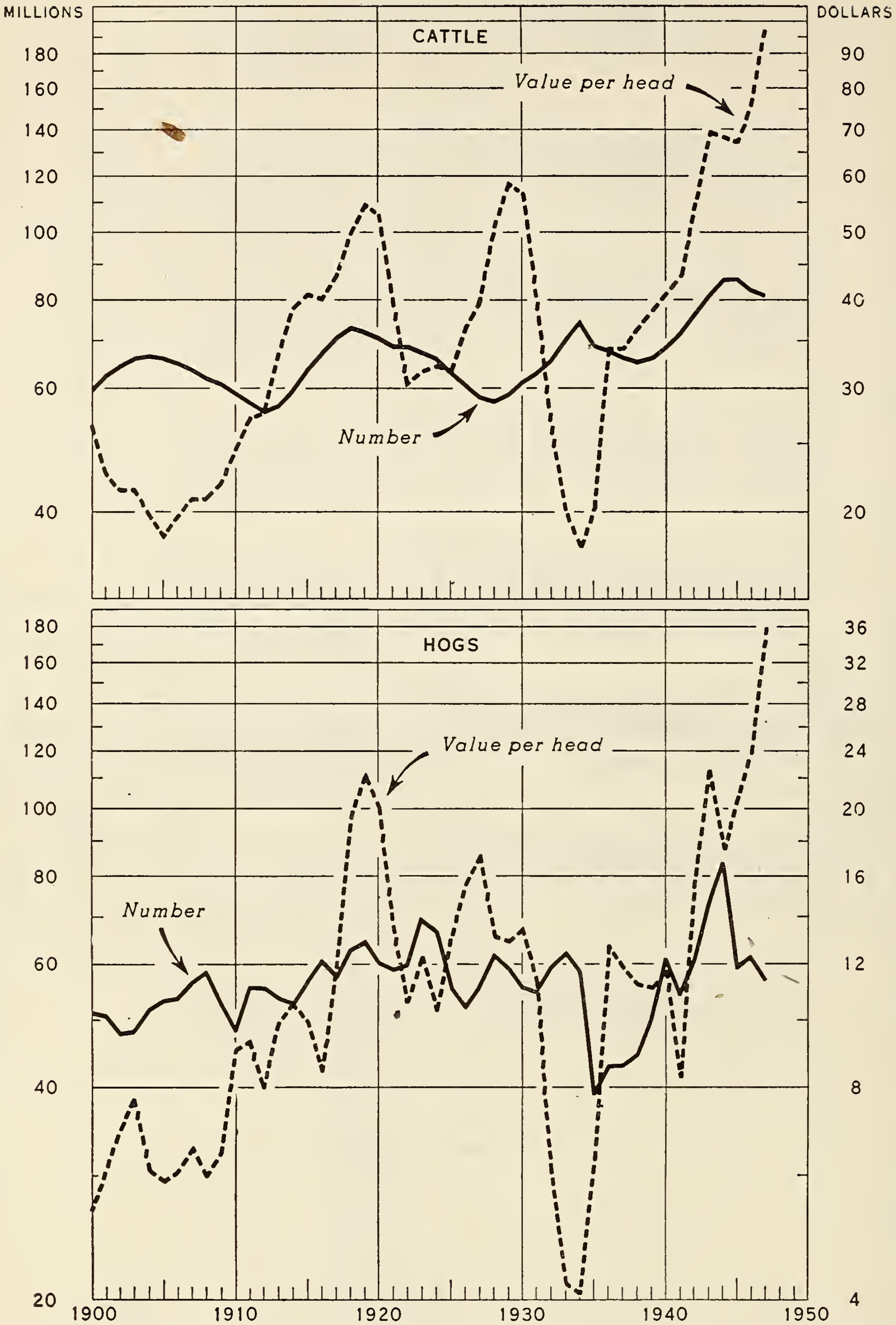

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FIGURE 6.—CATTLE AND HOGS: NUMBER AND VALUE PER HEAD ON FARMS JANUARY 1, 1900–1947

The decline in cattle numbers on farms January 1, 1946 and 1947 appears to be a continuation of the cyclical downward movement that started after reaching its peak in 1945. The sharp rise in prices of cattle resulted mainly from continued active domestic demand, increased exports of dressed beef, and the release of price controls. The smaller numbers of hogs on farms on January 1, 1947 compared with a year earlier resulted from a relatively small fall pig crop, and unusually heavy fall marketings. The strong demand, which led to the sharp rise in prices, is evidenced by a per capita consumption of pork that was 15 percent larger than a year earlier. Exports in 1946 on the other hand were about 45 percent less than a year earlier.

period 1935–39. Exports of lamb and mutton in 1946 were only 21 million pounds as compared with 28 million pounds the year before.

The inventory value, as well as the number, of horses on farms for January 1, 1947, was the lowest in 79 years. The number on farms fell 10 percent during the year but the value per head increased about $2. The number of mules on farms at the beginning of 1947 similarly decreased, reaching the lowest point since 1895. The value of mules per head increased $8, or about 6 percent, but this increase in price was not enough to offset the reduction in numbers, so the total value of the inventory was down nearly 3 percent. The reduced number of horses and mules on farms, as well as the higher price per head, reflects a substantial increase in exports, a small increase in slaughter, and fewer colts on farms. During 1946, a total of 155,132 horses and mules were exported, as compared with only 18,533 in 1945.

The value of turkeys on hand January 1, 1947, was 43 million dollars, or 12 percent below that of the preceding year, but it was still 87 percent above the 1936–45 average. The number of birds on farms was 22 percent fewer than a year earlier but the value per bird was almost 13 percent higher. On January 1, there were 26 percent fewer market birds and 20 percent fewer breeder hens than on the same date in 1946.

Chickens on farms at the start of 1947 were valued at $683,976,000, or 2 percent more than for 1946 and 72 percent more than the 10-year average, 1936–45. But the number of chickens was 10 percent smaller than a year earlier. Pullet numbers were down 12 percent and the number of "other chickens" was smaller by 35 percent. The number of hens on farms was higher by 2 percent and the average value per bird increased from $1.27 to $1.44.

From this review it is evident that the increase during 1946 in the inventory value of livestock on farms was due to higher prices. At the prices which prevailed a year earlier, the inventory of January 1, 1947, would have been worth 4 percent less, instead of 23 percent more, than the 1946 inventory.

Similarly, if 1947 numbers had been valued at 1940 prices, the total would have been only 5.2 billion dollars, or 43 percent of current value.

Because the supply of feed grains is an important reason for retaining or marketing livestock it is significant that supplies of feed grains on farms January 1, 1947, were 10 percent larger than those of the previous year and were the largest January stocks on record. In view of the decline of 5 percent in number of animals, measured in terms of feed-grain-consuming livestock units, the supply of feed grains as of January 1, 1947, appeared more favorable than the supply a year earlier. Feed grain per livestock-unit was 17 percent larger than at the beginning of 1946 and 8 percent above January 1, 1942, the previous high record.

CROP INVENTORY

The value of crop inventory held on farms on January 1, 1947, is estimated at 6,866 million dollars, an increase of more than a billion dollars over that of a year earlier. As with most other physical inventory items, the principal factor in the increase was the higher price at which the various crops were valued, although quantities on hand also were larger than a year earlier. Some indication of the influence of changes in quantities may be found by multiplying the 1947 quantities by 1946 prices. This shows that quantities of crops on hand January 1, 1947, were about 4.5 percent larger than at the beginning of 1946. This is in contrast to the change that occurred during 1945 when quantities declined about 3 percent and prices increased only slightly more than enough to offset the lower quantities; hence, there was little change in value from the year before.

The value of grain crops accounted for nearly two-thirds of the total value of all crops on farms January 1, 1947, and on that date were valued at nearly 4.3 billion dollars (table 9). This was about 24 percent larger than on January 1, 1946, and it is accounted for by the fact that quantities on farms were about 8 percent larger and prices about 14 percent higher than a year earlier.

Corn was the most important grain crop on hand January 1, 1947. It is estimated that on this date farmers held 2.2 billion bushels valued at 2.6 billion dollars. The number of bushels held was about 16 percent larger than a year earlier and prices were 12 percent higher. The higher price did not reflect any limited supply during the year. Production in 1946 was at the record level of 3.3 billion bushels, and with a carry-over on October 1, 1946, of 173 million bushels, the available supply for the crop season totaled 3.5 billion bushels. Exports of about 17 million bushels probably had but little influence on current inventories or prices.

The wheat inventory on January 1, 1947, is estimated at 366 million bushels with a value of 704 million dollars. The quantity on hand was about the same as a year earlier but the price was about one-fourth higher. As with corn, production during the year was at a record level, but exports of wheat and wheat products, including military civilian-relief shipments, rose from about 306 million bushels in 1945 to nearly 355 million in 1946. Total disappearance in 1946 amounted to about 1,200 million bushels compared with 1,260 million in 1945. As a result of the short supply of wheat in relation to the requirements, restrictions were placed on the industrial use of wheat and the extraction rate was increased. This led to a slight reduction in use for domestic food. The limitation of industrial use, reduction in requirements for the military services, decreased use for feed, and the slight reduction in domestic-food use more than offset the increased exports and seed.

The inventory value of hay and forage on farms increased from 1,458 million dollars on January 1, 1946, to 1,566 million a year later. However, quantities held by farmers were 7 percent less at the beginning of 1947 than at the beginning of 1946. Price was the major influence on the change in current inventory value from that of a year earlier. Prices averaged about 16 percent higher on January 1, 1947, than on the same date in 1946.

Oil crops on farms January 1, 1947, averaged 7 percent less than a year earlier in quantity but the value was 33 percent greater. The quantity of soybeans was 16 percent less than a year earlier, that of flaxseed 8 percent less, and cottonseed about 16 percent less, whereas peanuts on hand increased about 27 percent. Prices, on the other hand, rose 31 percent for soybeans, nearly 150 percent for flaxseed, 80 percent for cottonseed, and more than 13 percent for peanuts.

TABLE 9.—*Crop inventory on farms: Value by classes, United States, Jan. 1, 1940–47* [1]

[In thousands of dollars]

Class	1940	1941	1942	1943	1944	1945 [2]	1946 [2]	1947
Grain [3]	1, 444, 910	1, 565, 881	2, 230, 510	2, 976, 420	3, 514, 920	3, 488, 393	3, 463, 651	4, 281, 730
Hay and forage [4]	665, 883	698, 987	862, 825	1, 039, 034	1, 436, 756	1, 512, 775	1, 457, 858	1, 566, 165
Oil crops [5]	33, 746	45, 183	56, 527	220, 223	184, 780	170, 757	171, 586	228, 684
Vegetables [6]	72, 281	55, 917	90, 863	115, 928	172, 816	157, 792	154, 514	174, 905
Tobacco	84, 216	67, 752	89, 540	134, 660	177, 680	269, 770	236, 066	330, 935
Miscellaneous [7]	37, 605	58, 815	78, 216	98, 461	76, 988	170, 639	294, 801	283, 337
Total	2, 338, 641	2, 492, 535	3, 408, 481	4, 584, 726	5, 563, 940	5, 770, 126	5, 778, 476	6, 865, 756

[1] Crops stored on farms including those sealed under Commodity Credit Corporation loan programs. Excludes all stocks held off the farm.

[2] Revised.

[3] Corn, wheat, oats, barley, rye, buckwheat, rice, sorghum for grain, dry edible beans, and dry field peas.

[4] All hay, corn silage and forage, and sorghum for silage and forage.

[5] Soybeans, flaxseed, peanuts, and cottonseed.

[6] Irish potatoes, cabbage, and onions.

[7] Broomcorn, cotton, and hayseed. Hayseed includes red clover, alfalfa, lespedeza, alsike clover, timothy, and sweetclover.

These prices reflect a general shortage of fats and oils. Exports of soybeans dropped from 414 million pounds in 1945 to 174 million in 1946, but exports of cottonseed rose from 6.7 million to 10.3 million pounds and those of flaxseed increased from 635,000 to 1.1 million pounds.

Vegetables present a contrasting situation, with a larger quantity on hand but at lower prices. The inventory value of vegetables was 13 percent greater on January 1, 1947, than a year earlier. Had the current inventory been valued at 1946 prices, the resulting value would have been 31 percent greater than that on January 1, 1946.

The quantity of tobacco on farms January 1, 1947, is estimated to have been 819 million pounds and to have had a value of 331 million dollars (40 percent higher than on January 1, 1946). The quantity on hand was up 47 percent over a year earlier, whereas the price was down nearly 5 percent.

"Miscellaneous crops," mainly cotton, is the only class which had a lower inventory value on January 1, 1947, than on January 1, 1946. This lower value was due to a smaller quantity of these crops on hand, as prices on the average were 28 percent higher. Cotton accounted for nearly 84 percent of the total. On January 1, 1947, farmers held 1.6 million bales as compared with 2.2 million on January 1, 1946, but higher prices in 1947 brought the inventory value up nearly to the January 1, 1946, figure. The higher price reflects exceptionally small crops in 1945 and 1946, an unprecedented level of domestic consumption, and increased exports. Production during the crop years 1945 and 1946 was 8,773,000 bales and 8,517,000 bales, respectively, which compares with a 1935–39 prewar average of 12,873,000 bales. During the crop year ended August 1, 1946, domestic consumption was 9.2 million bales. Even with this high rate of consumption the physical inventories of cotton textiles in the hands of manufacturers remain considerably below prewar levels. In June 1946 such inventories were 22 percent smaller than in 1939 and 23.7 percent smaller than in 1941. Exports of cotton were 2.5 million bales in 1945 and increased to 4.1 million bales in 1946.

Revisions for 1945 and 1946.—Based upon additional data on crop production made available in the 1945 Census of Agriculture, certain revisions have been made in the quantities of crops on hand January 1, 1945 and 1946. These revisions decreased the total inventory on January 1, 1945, by about 2.5 percent. For individual classes of crops, the revisions increased the inventories of hay forage and oil crops and reduced those for grain and miscellaneous crops. There were no revisions of inventories of vegetables and tobacco.

Revisions for January 1, 1946, decreased the total value of crops on farms by a little more than 1 percent. By classes, the revision for January 1, 1946, slightly reduced the estimated value of grains, oil crops, and miscellaneous crops, and resulted in a small upward adjustment in the figures for vegetables and hay for forage. No change was made in the figures for tobacco.

Warehouse Receipts.—The value of crops held in storage off farms, as measured by receipts pledged as security for CCC loans, dropped from 252 million dollars on January 1, 1946, to 28 million dollars on January 1, 1947 (table 10). This decrease of 89 percent during 1946 followed a decrease of 59 percent during the previous year.

Continued high prices induced many farmers to market their crops soon after harvest. Moreover, those who stored their crops often did not need credit, or if they did they frequently utilized non-CCC types of credit for which records of warehouse receipts are unavailable.

TABLE 10.—*Estimated value of warehouse receipts pledged as security for CCC loans, specified commodities, United States, Jan. 1, 1940–47*

[In millions of dollars]

Commodity	1940	1941	1942	1943	1944	1945	1946	1947
Flaxseed	0	0	0. 7	1. 6	0. 6	(1)	(1)	(1)
Wheat	127. 5	222. 7	253. 8	253. 3	90. 9	176. 3	39. 5	11. 5
Barley	0	. 1	. 7	1. 8	. 1	. 8	(1)	(1)
Rye	0	0	0	. 1	(1)	(1)	0	(1)
Cotton	178. 4	228. 0	135. 3	268. 4	422. 9	440. 8	212. 3	16. 3
Dried peas	0	0	0	0	. 1	(1)	(1)	0
Dried beans	0	0	0	0	. 5	(1)	0	0
Grain sorghums	0	(1)	(1)	(1)	(1)	. 5	(1)	(1)
Total	305. 9	450. 8	390. 5	525. 2	515. 1	618. 4	251. 8	27. 8

[1] Less than $50,000.

FARM MACHINERY AND MOTOR VEHICLES

After a small decline in 1945, the inventory value of farm machinery and motor vehicles rose sharply in 1946. On January 1, 1947, such assets were valued at 6,889 million dollars, or 11 percent more than a year earlier (table 11). This increase reflects both higher valuations of existing machinery and an increased purchase of machinery during the year at higher prices. In 1946 farmers' expenditures for machinery and motor vehicles totaled 1,784 million dollars compared with 1,267 million dollars in 1945. This is the third consecutive year that such expenditures were over a billion dollars. But it was the first year since 1942 that expenditures exceeded estimated depreciation based on current valuations as of the beginning of each year (fig. 7).

Of the total value of machinery and vehicles, 1,467 million dollars represented the value of tractors on farms January 1, 1947; 1,077 million, the value of automobiles; 697 million, the value of motortrucks; and 3,648 million, the value of other machinery.[9]

TRACTORS.—The number and value of tractors on farms have become of considerable significance not only because they represent a major asset but because they reflect the mechanization of farm enterprises and the substitution of mechanical for animal power. This substitution has significant implications on the extent of cropland released to produce commodities for human food rather than for feed. It is estimated that during the period 1940 to 1945, approximately 7 million additional acres of cropland were released for this purpose owing to the sharp decline in numbers of farm horses and mules. Tractors and associated equipment, furthermore, increase the output per worker as they make it possible to do the work faster and better.

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[9] For a short discussion of wartime machinery controls refer to the BALANCE SHEET OF AGRICULTURE, 1946. U. S. Dept. Agr. Misc. Pub. 620, 56 pp. 1947.

TABLE 11.—*Value and depreciation of farm automobiles, motortrucks, tractors, and other farm machinery, 1940–47*

Year	Tractors			Year	Other farm machinery		
	Value Jan. 1		Amount of depreciation		Value Jan. 1		Amount of depreciation
	Index 1940=100	Amount			Index 1940=100	Amount	
		Million dollars	*Million dollars*			*Million dollars*	*Million dollars*
1940	100	589	183	1940	100	1,364	275
1941	108	636	213	1941	105	1,436	306
1942	137	808	235	1942	122	1,658	348
1943	176	1,038	260	1943	156	2,123	401
1944	196	1,152	335	1944	191	2,605	514
1945	226	1,330	371	1945	234	3,186	629
1946	223	1,316	387	1946	247	3,367	675
1947	249	1,467	--------	1947	267	3,648	--------
	Automobiles			Total machinery and motor vehicles			
1940	100	944	219	1940	100	3,135	738
1941	97	912	231	1941	103	3,241	819
1942	108	1,015	215	1942	121	3,781	880
1943	105	987	210	1943	146	4,573	976
1944	116	1,091	230	1944	173	5,418	1,214
1945	115	1,088	231	1945	199	6,235	1,377
1946	98	922	240	1946	198	6,192	1,462
1947	114	1,077	--------	1947	220	6,889	--------
	Motortrucks						
1940	100	238	61				
1941	108	257	69				
1942	126	300	82				
1943	179	425	105				
1944	239	570	135				
1945	265	631	146				
1946	246	586	160				
1947	293	697	--------				

During 1946 the value of tractors on farms increased from 1,316 to 1,467 million dollars, continuing the long-time upward trend (fig. 8). This trend continued even during the war because special emphasis was placed on the necessity of maintaining tractor production. Furthermore, purchases of tractors, according to rough approximations, probably exceeded depreciation in each year during the period 1940–46 except in 1943 and 1945, and farmers also added to the value of their tractor inventory by using home-made and reconditioned vehicles.

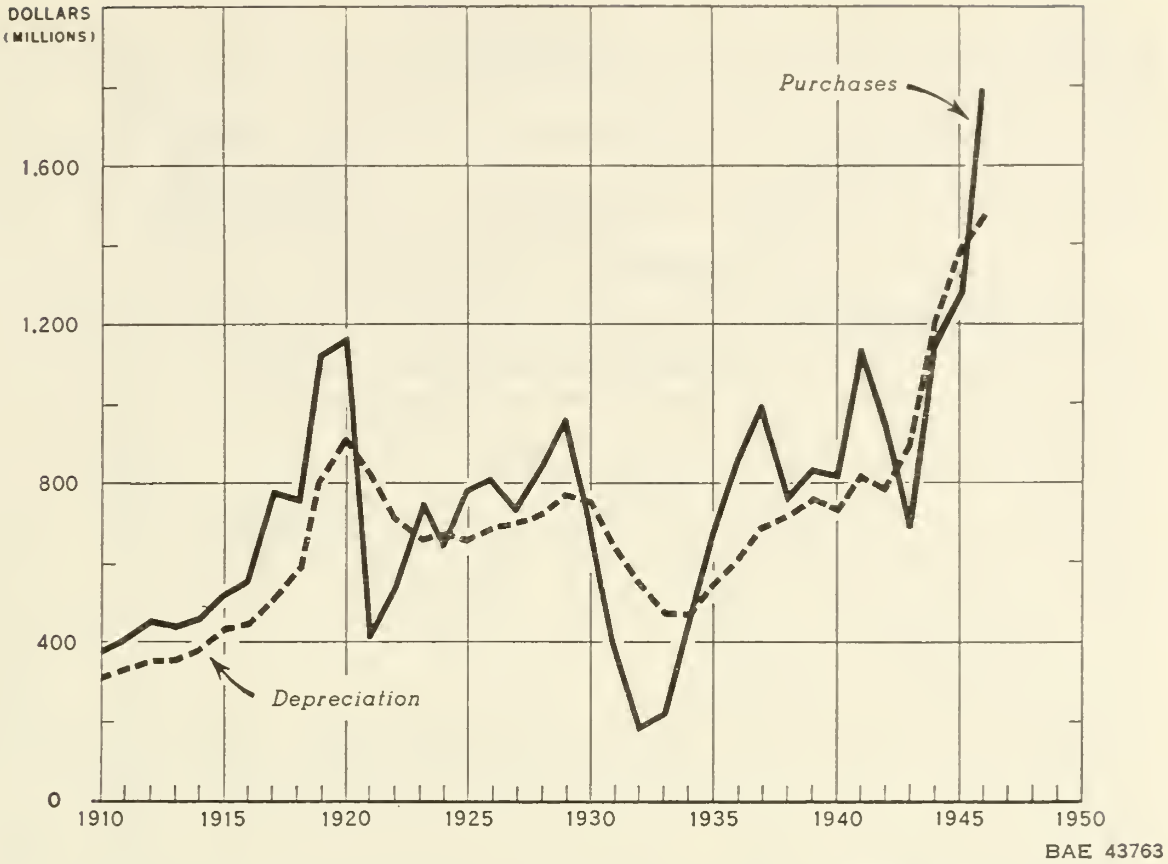

FIGURE 7.—PURCHASES AND DEPRECIATION OF FARM AUTOMOBILES, MOTORTRUCKS, TRACTORS, AND OTHER FARM MACHINERY, UNITED STATES, 1910–46

It is estimated that for the first time since 1942 purchases of all farm machinery and motor vehicles in 1946 exceeded depreciation. Purchases of nearly 1.8 billion dollars reflect not only higher prices paid by farmers for new equipment but the increased availability of such items. In addition to purchases, farmers also added considerable value to their inventory by construction of home-made equipment and by reconditioning old machinery.

AUTOMOBILES.—The inventory value of automobiles has not shown the general increase in value since 1940 that has characterized the trend for tractors. On January 1, 1947, the inventory value of automobiles is estimated to have been 1,077 million dollars compared with 944 million in 1940. The 1947 inventory is an increase of 155 million dollars over a year earlier, but it is still 11 million dollars below 1945 and 14 million below 1944.

The year 1946 was the first year since 1941 that purchases of automobiles, as approximated, may have exceeded depreciation. In the period 1940–46 the combined deficit of expenditures over depreciation was more than 600 million dollars. This deficit is obviously the result of the limited availability of new cars during the war and of the high prices and scarcity of used cars.

MOTORTRUCKS.—The inventory value of motortrucks on January 1, 1947, was 697 million dollars compared with 586 million a year earlier and 238 million in 1940. Farmers' expenditures for motortrucks in 1946 more than doubled not only those for 1945 but those for every year since 1940, except that in 1942 they were just short of double. Furthermore, such expenditures may have exceeded the amount of depreciation for the first time since 1942.

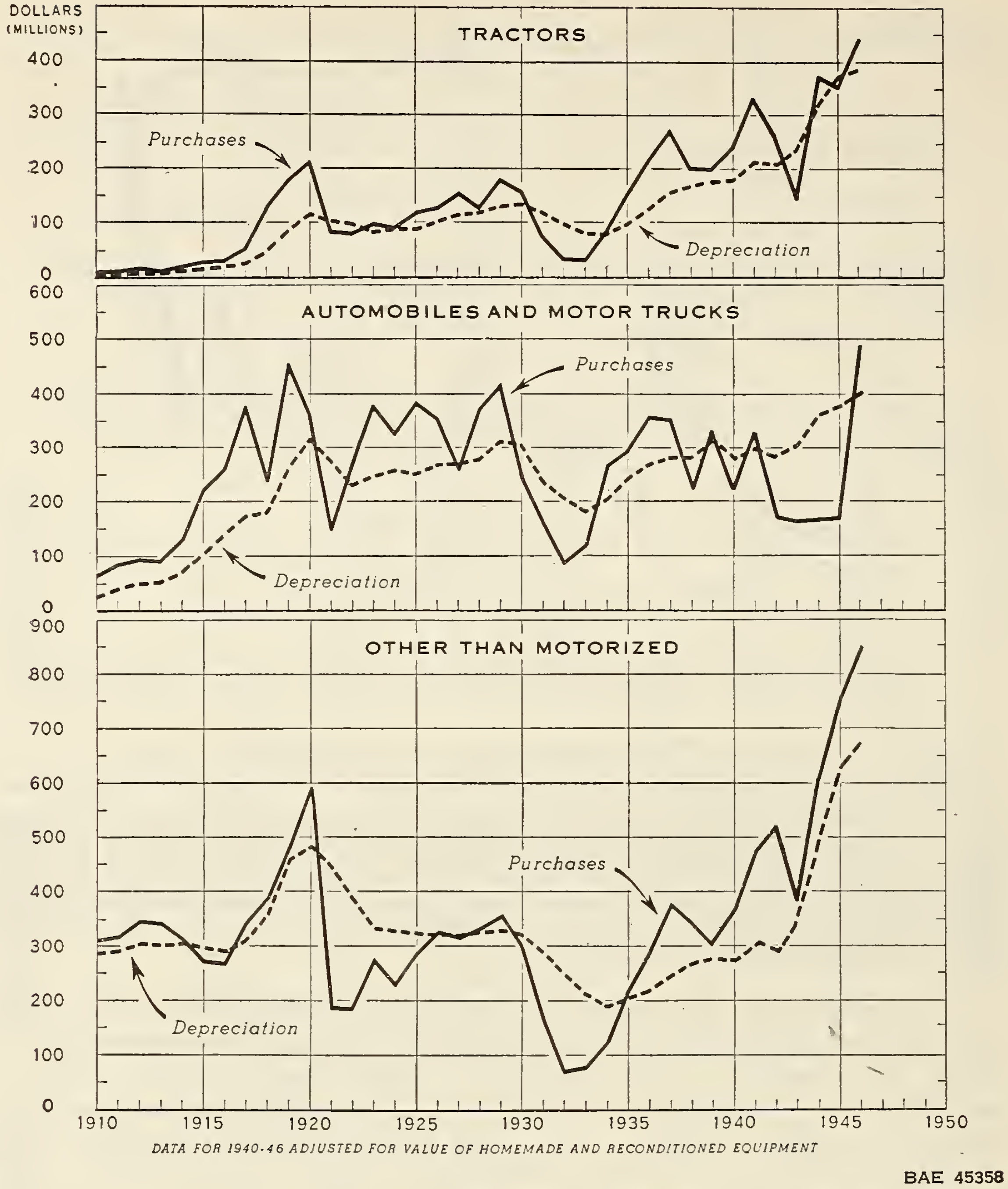

FIGURE 8.—FARM MACHINERY: PURCHASES AND DEPRECIATION, UNITED STATES, 1910–46

Purchases exceeded depreciation for all classes of farm machinery and motor vehicles during 1946. Greatest improvements in machinery inventories occurred in "other than motorized" equipment. The largest accumulated wartime deficits apparently are in automobiles and motortrucks. The year 1946 was the first since 1941 that purchases appear to have exceeded depreciation. Tractor numbers were fairly well maintained during the war period by special allocations. Even then a substantial deficiency was shown for 1943 and a slight deficiency for 1945. Excesses or deficiencies do not wholly measure changes in quantities of machinery on hand because of such factors as changes in prices of new equipment purchased, repairs on and reconditioning of old equipment, and amount of home-made equipment.

OTHER FARM MACHINERY.—Of the total value of the inventory of machinery and motor vehicles on January 1, 1947, about 53 percent, or 3,648 million dollars, is made up of machinery other than tractors, trucks, and automobiles. This amount is about 8 percent more than the value of such inventory a year earlier and more than 250 percent of the value at the beginning of 1940. In only one year since 1940 has the amount of depreciation apparently exceeded purchases. This was in 1943. A notable offset was the extent to which farmers reconditioned machinery which, under peacetime conditions, often might have been retired from service.

Physical Quantity of Machinery Increased During War.—The increase since prewar years in inventory valuations of machinery and vehicles resulted to a considerable extent from higher prices. The Bureau's index of prices paid for machinery (excluding vehicles and tractors) increased from an average of 152 (1910–14=100) in 1940 to 194 on March 15, 1947. The weighted price of new and used machinery and motor vehicles bought by farmers—a price based on limited available information—increased about 90 percent between January 1940 and January 1947. Thus, after allowing for purchases and depreciation, if machinery and vehicles on farms as of 1947 had been priced at the 1940 level, the valuation would have been only 3,607 million dollars, or 15 percent above the 1940 valuation. Applying the same technique to the individual types of equipment, a decrease in the value of automobiles is shown between 1940 and 1947, whereas comparable valuations for tractors, motortrucks, and other farm machinery indicate substantial increases. Such evidence indicates that farms became much more mechanized during the war, particularly when increased numbers and greater use per unit of mechanical equipment are considered.

Supporting the implications of the data on values are the facts of physical quantity and use of machinery and equipment. Whether measured in terms of the numbers of items on farms, or the acreage on which equipment was used, or the volume of crops or dairy products produced with mechanical and power equipment, it is evident that mechanization proceeded apace even during the war. To a large extent this mechanization was forced by a scarcity of suitable farm laborers at the wages paid. The appearance of a shortage arose merely from the probability that had equipment been available in unlimited supply, agriculture would have used much more than it did. Nevertheless, according to the Census of Agriculture, the number of trucks on farms was 39 percent greater in 1945 than in 1940. A further increase probably has occurred since then.

The number of automobiles on farms was little changed in 1946 from what it had been in 1940.[10] Of course the automobiles were of older average age and in a more worn condition by the end of the period. The number of tractors increased 75 percent between 1940 and 1947. The average use per tractor also increased. In 1938 only 50 percent of the wheat and 15 percent of the acreage in oats was harvested by combines. In contrast, in 1945, 75 percent of the wheat acreage and 40 percent of the oat acreage were combined.

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[10] For information concerning the physical quantities of equipment see the following sources: *The Farm Cost Situation*, BAE, March 1947, pp. 5–7 (Processed); *The Agricultural Situation*, BAE, July 1946, pp. 9–10; Brodell, A. P., Engebretson, T. O., and Carpenter, C. G., harvesting the hay crop, BAE, April 1946 (Processed); Brodell, A. P., and Cooper, M. R., number and duty of principal farm machines, BAE, November 1944 (Processed); Brodell, A. P., and Walker, H. R., harvesting the corn crop, BAE, April 1945 (Processed); Brodell, A. P., Birkhead, J. W., and Peters, J. H., harvesting small grains and utilization of the straw, BAE, June 1947 (Processed); Automobile Manufacturers Association, *Motor Truck Facts*, 1947.

The number of corn pickers on farms was more than 50 percent greater in 1946 than in 1942 and the newer pickers covered more acres annually. New-type power machines for haymaking—including such tractor-powered equipment as mowers, windrow pick-up balers, buck rakes, and combination stacker-loaders—have become increasingly important. Production of sugar is more highly mechanized. Even mechanical cotton pickers have reached the stage of limited farm use. The number of milking machines on farms increased about 75 percent between 1942 and 1946. Under favorable conditions they may reduce labor requirements for milking by as much as 50 percent as compared with hand milking. The physical inventory of farm equipment has increased and the equipment is used more intensively than ever before. In general, the newer equipment represents an advance in the technology of farm production.

REVISIONS OF INVENTORY OF FARM MACHINERY AND MOTOR VEHICLES.—The inventory values from 1940 to 1946 have been revised to reflect 1945 census data as well as later and more complete information from other sources. In addition, previous estimates were valued at current prices on the basis of the changes in the prices of new machinery and motor vehicles. Because of the limited supply of new machinery during the war and the fact that used machinery increased much more in price than new machinery, the adjustment to current prices in these revisions is based on changes in weighted-average prices of both new and used machinery and motor vehicles. This resulted in a much greater price adjustment than those found in previous estimates.

Revised estimates of farmers' expenditures for machinery and motor vehicles were, on an average, 5 percent larger than previously estimated for the period 1940–45. The major revision was for 1942 for which year farmers' expenditures were increased more than one-fourth above the previous figures. Estimates of depreciation on farm machinery and motor vehicles have also been increased. The extent of such revisions averages about 9 percent annually, or more than enough to offset upward revisions in farmers' expenditures.

The inventory value of tractors on January 1, 1946, was revised upward from 953 million dollars to 1,316 million dollars. This revision involved allowance both for higher prices and for home-made and reconditioned tractors.

The revised inventory value of automobiles for January 1, 1946, is 922 million dollars compared with the old estimate of 1,213 million dollars. This reflects both a reduced estimate of expenditures for automobiles during the period 1940–45 and smaller price increases. Revisions for the inventory value of motor trucks were in the opposite direction. On January 1, 1946, the revised estimate was 586 million dollars as compared with the old estimate of 361 million dollars, reflecting increases in the same factors as for tractors.

To correct what appears to have been a substantial omission in previous inventory values, estimates have now been made of the value of home-made machinery and motor vehicles as well as the value of reconditioned equipment. During the period 1940–45, it is estimated that such items had added an aggregate value of more than 200 million dollars to the inventory. In 1942 and 1943 they added 98 and 83 million dollars a year, respectively.

HOUSEHOLD FURNISHINGS AND EQUIPMENT

The value of furnishings and equipment in farm households at the beginning of 1947 was estimated at 4,766 million dollars. This is 8 percent greater than the estimate for a year earlier and represents the greatest increase in value for any year since 1940. The increase in value of these farm-household goods for the entire period from 1940 to 1947 was 11 percent.

The comparatively large rise in valuation during 1946 resulted partly from an increase in the number of farm families. A more important reason, however, was the expanded purchasing of new household furnishings and equipment. Increasing production of consumer goods since the end of the war has permitted the fulfilling of some of the accumulated demands of farmers. During 1946 the average value of furnishings and equipment per family increased to $700. This is $38 greater than the average a year earlier and $102 greater than on January 1, 1940.

Financial Assets

At the beginning of 1947 the financial assets of farm people for which estimates have been made totaled about 22 billion dollars. About 20⅓ billion dollars were in the form of liquid assets—currency, bank deposits, and United States savings bonds. Currency and deposits, both demand and time, amounted to about three-fourths of these liquid assets. Holdings of United States savings bonds, nearly all of which were acquired since 1940, amounted to a fourth of the farmer-owned liquid assets. The financial interest of approximately 1⅔ billion dollars in cooperative organizations constitutes the remainder of the financial assets listed in the balance sheet.

Farmers usually have not been much concerned with investments outside their own business. Few data are available on other investments but a survey early in 1946, based on a relatively small number of farm operators, indicated that only 1 percent held corporate or municipal securities and that only about 1 percent held mortgages and notes, respectively. Six percent of the farmers owned some urban or farm real estate other than the farm they operated. Ordinarily, most farmers are more inclined to expand or to improve their own farms than to invest elsewhere.

Large amounts of the uninvested liquid assets now held by farmers will probably flow into the farm business or be used to improve homes, buy consumer goods, or otherwise raise the level of living of farm families. Sizable amounts will also be held as reserves for contingencies. Except where individual holdings are unusually large, it is not likely that many of such assets will be shifted to investments other than those related to farming.

BANK DEPOSITS

Bank deposits of farm people increased to the highest point on record in 1946 although the amount and rate of increase were considerably less than in immediately preceding years. Because of the increase in prices paid by farmers, however, these large deposits of January 1, 1947, would buy less goods than the deposits of a year earlier.

The amount of deposits owned by farmers on January 1, 1947, is estimated at 11,100 million dollars as compared with 9,700 million a year before (table 12). Estimated demand deposits increased from 6,400 to 7,500 million dollars and time deposits from 3,300 to 3,600 million dollars during the 12-month period.[11] This represented an increase of 17 percent for demand deposits and 9 percent for time deposits.

In the Lake States demand deposits of rural areas have increased above the prewar level by a smaller percentage than in other farming areas.[12] Particularly large increases of demand deposits have occurred in country banks in the Great Plains States and the Corn Belt States. Time deposits have shown rather large gains from region to region except in the Texas-Oklahoma region where they are small and have increased only moderately since before the war.

TABLE 12.—*Farmer-owned bank deposits, United States, Jan. 1, 1940–47*[1]

[In billions of dollars]

Year	Deposits			Year	Deposits		
	Demand	Time	Total		Demand	Time	Total
1940	1. 5	1. 4	2. 9	1944	4. 4	2. 0	6. 4
1941	1. 7	1. 5	3. 2	1945	5. 0	2. 5	7. 5
1942	2. 2	1. 6	3. 8	1946	6. 4	3. 3	9. 7
1943	3. 2	1. 8	5. 0	1947	7. 5	3. 6	11. 1

[1] Bureau of Agricultural Economics estimates adjusted on basis of the Federal Reserve surveys of deposit ownership. The series is under review and may be further revised.

Wartime increase of deposits was not unique to rural areas. Demand and time deposits of all banks increased greatly during the war. Although during 1946 the war-loan accounts of the United States Government in the banks declined as the Government drew on these accounts, in the aggregate, deposits of nongovernmental owners continued to follow the wartime upward course. As in other recent years, privately owned deposits in farming areas continued to increase more than such deposits generally (fig. 9).

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[11] Demand deposits revised, 1946.

[12] Indexes of changes in deposits in country banks in towns of less than 15,000. Although the indexes of deposits in rural areas include deposits of nonagricultural groups, they are believed to reflect the trend of farmers' deposits and are useful in the comparison of the behavior of farmer-owned deposits with the behavior of those of the banking system as a whole.

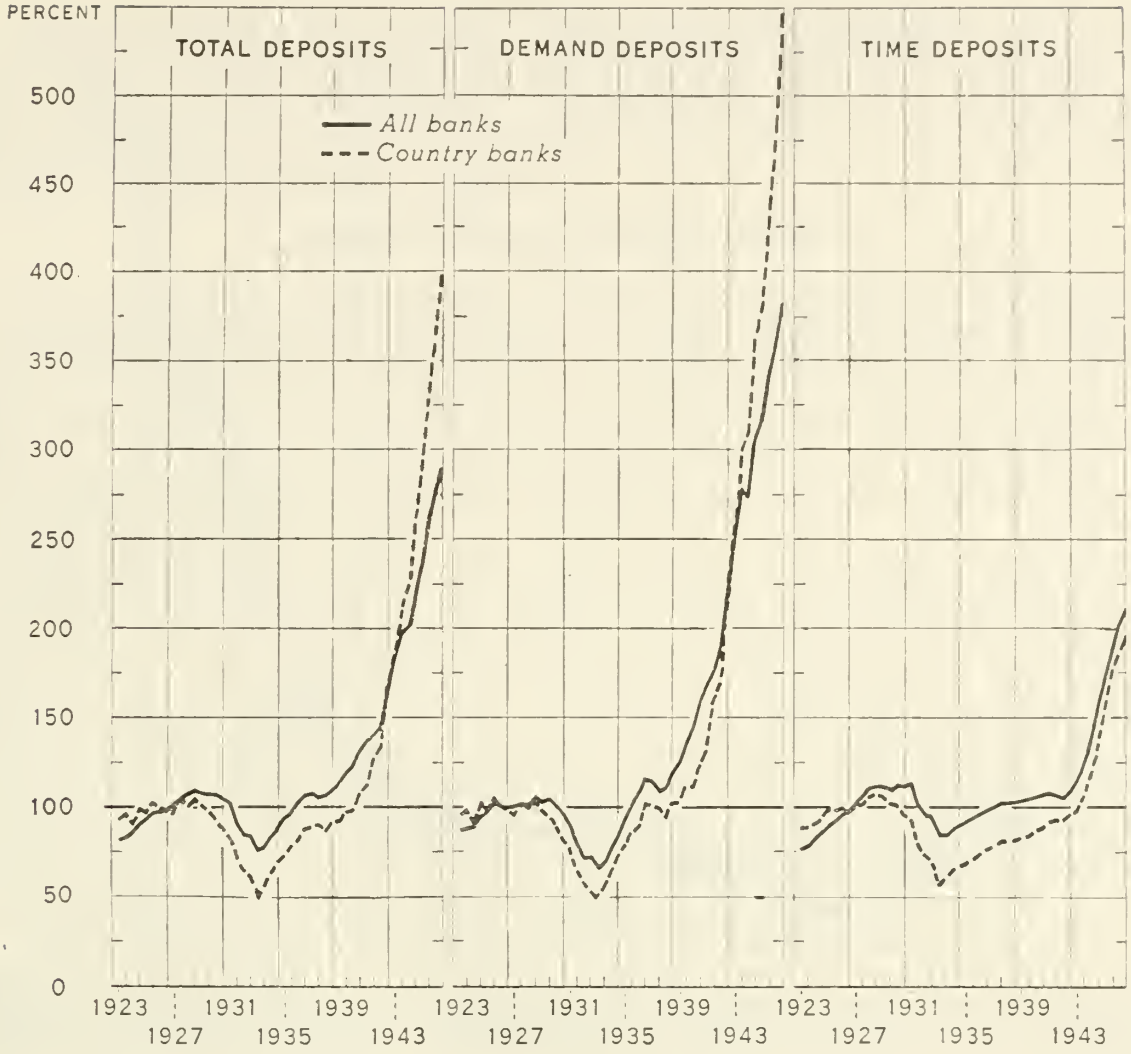

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FIGURE 9.—BANK DEPOSITS: ALL BANKS AND COUNTRY BANKS, UNITED STATES, JUNE 30 AND DEC. 31, 1923–46, EXCLUDING "WAR LOAN," INTERBANK, AND CERTAIN MINOR ITEMS. (INDEX NUMBERS 1924–29=100.)

Bank deposits expanded rapidly during the war. Demand deposits have grown more than time deposits. The deposits of country banks, which largely reflect holdings of farmers, have grown faster than the deposits of all banks since 1939.

Before the war the year-to-year changes in cash farm income, rural retail sales, and demand deposits of country banks were closely related (fig. 10). During the war, however, the scarcity of many goods prevented retail sales to farmers from rising in proportion to increased income. The rapidly rising farm income made possible the sharp climb in farmers' bank deposits; and the rate of increase of such deposits was accentuated by the lag in volume of farmers' retail purchases. After the war the continued rise in farm income permitted still further accumulations of deposits. In 1946 rural retail sales increased to a record dollar volume but farm income remained so high that, in terms of index numbers, the disparity between deposits and sales remained rather large. It is not certain that the prewar relationship of income, deposits, and sales will be re-established. This will depend upon numerous factors, including price relationships between farm and nonfarm products and the relationship between net farm income and the farmer's plane of living.

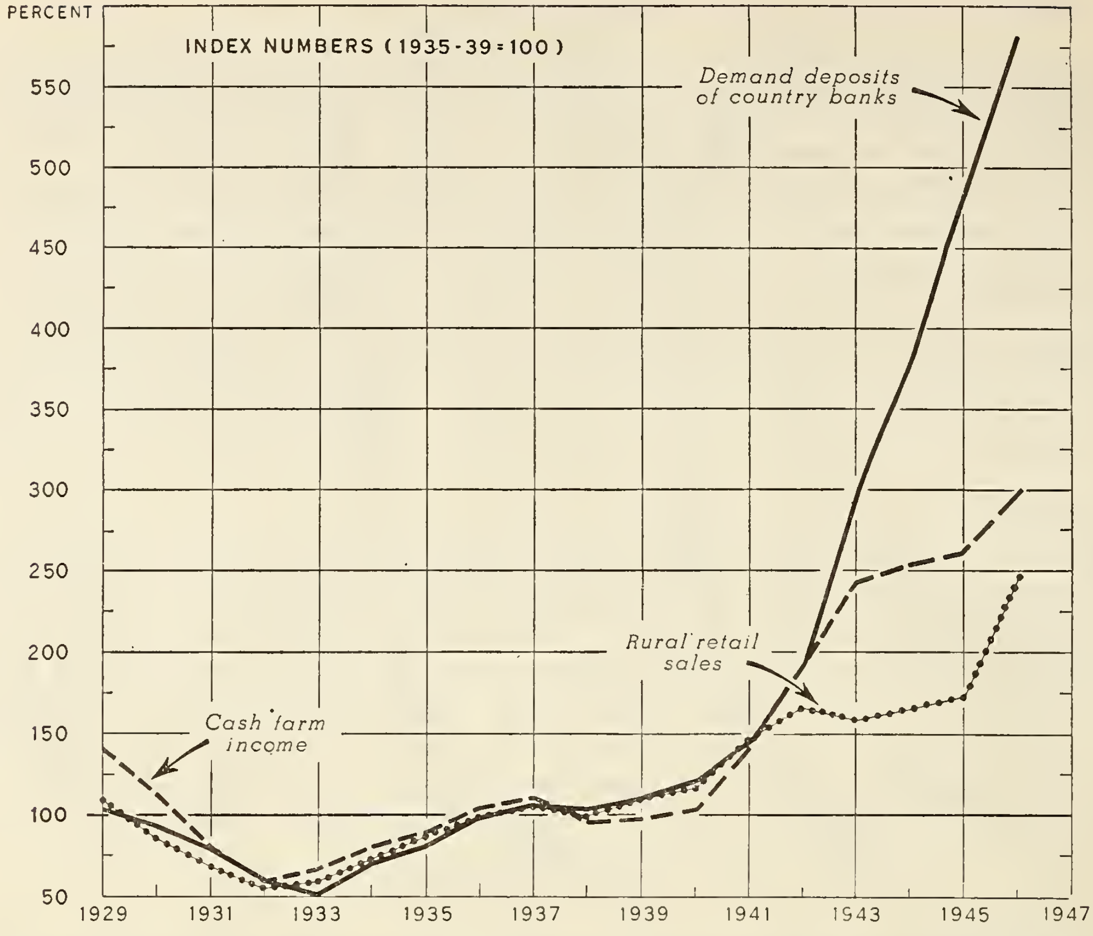

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FIGURE 10.—DEMAND DEPOSITS OF COUNTRY BANKS, CASH FARM INCOME, AND RURAL RETAIL SALES, UNITED STATES, 1929–46. (INDEX NUMBERS 1935–39= 100.)

Before the war the year-to-year changes in cash farm income, rural retail sales, and demand deposits of country banks were closely correlated. During the war period, however, the scarcity of many goods caused rural retail sales to remain comparatively constant. The continued rise in farm income has been one of the main factors causing a sharp climb in demand deposits of country banks. Since the war, cash farm income has continued to rise and at a greater rate than during the war, whereas rural retail sales have increased because of greater availability of goods.

In terms of purchasing power, bank deposits have increased less since 1940 than the absolute dollar figures would indicate. Since January 1, 1940 the prices farmers pay for goods and services have increased considerably. If adjusted for these prices paid, the increase in adjusted deposits would be less than the actual. Thus on January 1, 1947 the 11,140 million dollars of total deposits owned by farmers was the equivalent of only 6,015 million dollars of 1940 purchasing power. Although total deposits increased from 9,668 million dollars to 11,140 million dollars in the year ended January 1, 1947, the purchasing power in terms of 1940 dollars actually declined from 6,411 million to 6,015 million.

CURRENCY

Currency in the hands of farmers on January 1, 1947 is estimated at approximately 4 billion dollars, or nearly four times the amount estimated for January 1, 1940.

These estimates are derived from over-all United States data furnished by the Federal Reserve System for currency holdings of individuals of all occupations, by assuming that the average per capita holdings of persons on farms were equal to the average per capita holdings of all individuals.

UNITED STATES SAVINGS BONDS

The cash value of United States savings bonds held by farm people on January 1, 1947, is estimated at 5,371 million dollars. This is about 373 million more than was owned by farmers the year before. The net increase during 1946 was only about one-third as large as in 1945. Although the cashing of bonds increased somewhat, this reduced rate of increase can be attributed primarily to a decline in purchases of bonds.

The 530 million dollars estimated to have been spent by farmers in 1946 for savings bonds of all series is about half the estimated purchases in 1945. Purchases by farmers of series F and G bonds [13] were only 22 percent less than in 1945. Purchases of series E,[13] however, were nearly 60 percent smaller in 1946 than in 1945, with declines occurring in every region (table 13). In the Southeast, Texas-Oklahoma, and Pacific regions purchases of E bonds in 1946 were only a third of the purchases in 1945. In the Great Plains and the Corn Belt, where the decline was smallest, purchases of series E bonds amounted to about half of those made in 1945.

The varying rates of decline in bond purchases during 1946 among the regions probably are basically related to net farm income. The general decline in bond purchases by farmers must be attributed primarily to other factors, however, as farm income for the country as a whole remained at a record high level. Discontinuance of wartime bond drives appears to be one cause. Higher living costs combined with increased purchases of machinery, automobiles, and household equipment, and the holding of ready cash in anticipation of such purchases have been influential in reducing the volume of funds available for buying bonds.

The amount of bonds cashed by farmers in 1946 is estimated at about 223 million dollars, or 42 percent of the amount bought during the year. Expenditures like those mentioned as retarding purchases of bonds also may have influenced many farmers to cash some of their bonds. It is also probable that some bonds were cashed for the purchase of farm real estate. Although they totaled 40 million more than in 1945, redemptions of farmer-held bonds were believed to be at a much lower rate than for the population as a whole. The Treasury Department reports that bonds of all series cashed by all population groups during 1946 were 87 percent of the amount of the sales. In the case of series E bonds the redemptions for the total population were 21 percent greater than sales. Only the farm States of North Dakota, South Dakota, Nebraska, Iowa, and Kansas reported more E bonds sold than were cashed.

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[13] Series F bonds are 12-year discount bonds sold at 74 percent of maturity value Series G bonds are 12-year current income bonds sold at par. Series E bonds are 10-year discount bonds sold at 75 percent of maturity value. Purchases of series E bonds are limited to $3,750 issue price in any one calendar year. The limit for series F and G combined is $100,000 in any one year.

TABLE 13.—*United States savings bonds: Estimated cost of series D and E bonds bought by farmers, by regions, 1940–46*

[In millions of dollars]

Region	1940	1941	1942	1943	1944	1945	1946
Northeast [1]	12	20	74	118	150	112	44
Appalachian [2]	12	19	82	147	176	135	59
Southeast [3]	5	9	39	78	104	82	27
Lake States [4]	16	19	40	141	169	116	49
Corn Belt [5]	29	34	138	257	318	237	115
Delta States [6]	5	10	70	72	87	67	25
Great Plains [7]	10	11	43	109	151	114	59
Texas-Oklahoma	8	14	49	102	132	95	33
Mountain [8]	4	6	23	52	70	48	18
Pacific [9]	7	12	52	89	115	82	27
United States	108	154	610	1, 165	1, 472	1, 088	456

[1] Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania.
[2] Delaware, Maryland, Virginia, West Virginia, North Carolina, Kentucky, Tennessee.
[3] South Carolina, Georgia, Florida, Alabama.
[4] Michigan, Wisconsin, Minnesota.
[5] Ohio, Indiana, Illinois, Iowa, Missouri.
[6] Mississippi, Arkansas, Louisiana.
[7] North Dakota, South Dakota, Nebraska, Kansas.
[8] Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada.
[9] Washington, Oregon, California.

On January 1, 1946, a Nation-wide survey of 2,500 representative farm operators indicated that only half of them held United States savings bonds. Furthermore, about three-fourths of the bonds held by this group were in the hands of 10 percent of the farmers. No similar survey has been made since that time, but it is reasonable to believe that the concentration was as heavy on January 1, 1947, or possibly more so, than at the beginning of 1946. This is indicated by the relatively larger purchases of series F and G bonds, compared with purchases of series E. Bonds of series F and G are mainly in denominations of $500 and over and ordinarily are bought only by those with relatively large funds to invest. Farmers with the small holdings are believed to hold chiefly series E bonds. It is probable that farmers who have recently found it necessary to cash their bonds consist mainly of those who bought relatively few during the war, because of low income, heavy expenses, or other conditions.

INVESTMENTS IN COOPERATIVE ASSOCIATIONS

Farmers are believed to have only limited investments in nonfarm enterprises but they do have a substantial financial interest in farmers' cooperative organizations. These allied organizations operate in a number of fields. Some provide supplies like fertilizer, feed, and seed. Others provide water for irrigation; facilities for marketing farm produce; credit of various types; and varied services for both farm and home, including telephone, electricity, and fire insurance.

The net worth of the cooperatives for which estimates have been made totaled about 1,606 million dollars on January 1, 1947.[14] This net worth, represented by such items as stock, certificates of indebtedness, and reserves, is owned by the farmer-members and for the purpose of this report is considered an asset of agriculture. It is recognized that the farmer-members could not immediately realize an amount equal to the net worth by withdrawing from, or disposing of, their financial interest in these associations. The redemption or transfer value of stock in many associations does not exceed the par value regardless of the net worth, and the reserves of the associations are not usually withdrawable as they are required to meet the continuing needs of the associations for capital (table 14).

Marketing cooperatives, with net worth estimated at 503 million dollars at the beginning of 1947, form the largest segment of these farmer-owned organizations. The Farm Credit Administration listed 7,400 such associations during the 1944–45 marketing season and estimated their membership at 2,895,000. Although this estimate involves some duplication of farmers who belong to more than one association, it indicates that a considerable proportion of all farm operators are members. Purchasing associations, which often are affiliated with marketing cooperatives, numbered 2,750 and their membership, as estimated by the Farm Credit Administration, was 1,610,000. The volume of business of the purchasing cooperatives grew rapidly during the war period and their net worth, on January 1, 1947, is estimated at 288 million dollars—nearly four times the estimate for 1940.

Mutual irrigation companies are one of the oldest forms of agricultural cooperation, having originated with the Mormon pioneers in Utah a century ago. Latest data, those obtained for the Western States by the 1940 census, showed 4,356 mutual companies with an estimated membership of 148,294. The net worth of these mutual irrigation companies in Western States as reported by the 1940 census, was 197 million dollars. Farm prices have been excellent since 1940 and there have been no widespread shortages of water for irrigation. These factors as well as other indications suggest that, in general, the companies are in sound financial condition.[15] Further, it is believed that some have established sizable reserves. Although these irrigation cooperatives differ in many respects from other cooperatives it seems reasonable to assume that the trend in the financial condition has been similar. On the basis of this assumption, the net worth of mutual irrigation companies, on January 1, 1947, is estimated at 383 million dollars.

The financial condition of farmers' mutual telephone companies is believed to have shown no great change during the war. It is probable that collections have improved and that debts are less. On the other hand, the facilities of many of these companies are reported

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[14] Revised net worth totals for 1940–46 (table 14) are substantially larger than previously estimated. This results mainly from including as net worth reserves and surplus of the credit cooperatives in addition to capital stock formerly used. The net worth of irrigation companies for 1941–46 has been adjusted upward to reflect the trend of the other associations; previously the 1940 Census figure was used for each succeeding year.

[15] See IRRIGATION COMPANIES IN UTAH. Utah Agr. Expt. Sta. Bul. 322, March 1946.

TABLE 14.—*Farmers' financial interest in selected types of cooperatives, United States, Jan. 1, 1940–47*

[In millions of dollars]

Type	1940	1941	1942	1943	1944	1945	1946	1947
Marketing associations [1]	[2] 256	[2] 262	[2] 284	[2] 320	[2] 354	[2] 393	[2] 440	[3] 503
Purchasing associations [1]	[2] 74	[2] 84	[2] 102	[2] 120	[2] 158	[2] 194	[2] 236	[3] 288
Farmers' mutual telephone companies [4]	23	23	23	23	23	23	23	23
Farmers' mutual irrigation companies [5]	197	[2] 209	[2] 227	[2] 249	[2] 272	[2] 301	[2] 338	383
Farmers' mutual fire insurance companies [6]	42	45	50	56	61	[2] 68	73	[3] 78
Production credit system [7]	[2] 31	[2] 36	[2] 42	[2] 48	[2] 55	[2] 61	[2] 68	77
Land bank system [8]	[2] 203	[2] 216	[2] 225	[2] 228	[2] 217	[2] 222	[2] 239	254
Total	[2] 826	[2] 875	[2] 953	[2] 1, 044	[2] 1, 140	[2] 1, 262	[2] 1, 417	1, 606

[1] Net worth. Source: Bureau of Agricultural Economics estimates based on data accumulated by Farm Credit Administration.

[2] Revised.

[3] Preliminary.

[4] Investment in plant and equipment less borrowed money. Figure used for each date is that for Jan. 1, 1938. Source: CENSUS OF ELECTRICAL INDUSTRIES, 1937, United States Bureau of the Census.

[5] Net worth—Figure for Jan. 1, 1940, from CENSUS OF IRRIGATION OF AGRICULTURAL LANDS, 1940, United States Bureau of the Census; figures for later dates estimated by Bureau of Agricultural Economics on basis of changes in net worth of other cooperatives.

[6] Surplus and reserves. Data for 1940 and 1941 from Farm Credit Administration: Data for later years from Bureau of Agricultural Economics.

[7] Net worth excluding capital owned by Production Credit Corporation. Data from reports of Farm Credit Administration.

[8] Net worth excluding capital and surplus paid into the Federal land banks by the Federal Government. Data from reports of Farm Credit Administration.

to be in rather poor condition and some have been taken over by private companies. Until more specific data are available, the prewar estimate of 23 million dollars is being carried forward as the net worth of the mutual telephone companies.

The surplus and reserves of mutual fire insurance companies increased about 5 million dollars during 1946 to a total of 78 million at the beginning of 1947. The increase of 36 million since 1940 has resulted primarily from an increased volume of insurance arising from increased membership and higher building valuations. Losses have not increased in proportion to the greater volume of insurance written by these companies.

The land bank and the production credit systems, operating under the Farm Credit Administration, comprise an important group of farmers' cooperatives. The net worth of the land bank system includes the reserves, surplus, and undivided profits of both the national farm loan associations and the land banks and the land bank stock owned by the national farm loan associations and individuals. The stock of the national farm loan associations owned by members represents a duplication of the land bank stock held by the associations and therefore the underlying value has been counted but once. The capital and surplus paid into the land banks by the Federal Government are excluded. The net worth of the production credit associations consists of the reserves, surplus, and unimpaired capital owned by members and other individuals. Excluded from the net worth of the production credit associations is the capital stock held by the federally owned production credit corporations. The net worth of the land bank system totaled 254 million dollars at the beginning of 1947. This was 51 million more than in 1940. Although the repayment of many farm-mortgage loans has reduced earnings and necessitated the retirement of a large amount of stock of the Federal land banks,[16] the favorable conditions of the last few years have reduced land bank losses and expenses of operations. The increase of 148 percent in the net worth of the production credit associations since the beginning of 1940 has resulted mainly from a rapid expansion of loans which increased both earnings and the volume of capital stock.[16]

THE EQUITY ITEMS

Liabilities and equities of proprietors constitute the claims of the various classes of interests in the assets of agriculture. These two general classes comprise the interests of the creditors on the one hand and the landlords and operators on the other. Real estate mortgage debt, non-real-estate debt, and equities of proprietors are discussed in the following sections.

Farm Real Estate Debt

The farm real estate debt for the country as a whole experienced, during 1946, the first increase that has been reported since 1927. Revised estimates indicate an increase of 95 million dollars, with debt rising from 4,682 million dollars on January 1, 1946, to 4,771 million dollars at the beginning of 1947 (table 15). Nevertheless, except for

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[16] At the time an applicant obtains a loan he buys stock equal to 5 percent of his loan. This stock is usually retired when the loan is repaid.

TABLE 15.—*Farm-mortgage debt: Total amount, Jan. 1, 1940–47, and percentage change 1940–47 and 1946–47, by States* [1]

State and region	1940	1941	1942	1943	1944	1945	1946	1947	Percentage change	
									1940–47	1946–47
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*Percent*	*Percent*
Maine	24, 757	24, 003	22, 566	20, 507	17, 972	16, 713	16, 431	17, 681	−28. 6	7. 6
New Hampshire	11, 220	11, 318	11, 117	10, 501	9, 932	9, 706	9, 584	9, 822	−12. 5	2. 5
Vermont	27, 814	27, 051	25, 412	23, 813	22, 327	21, 975	22, 814	25, 768	−7. 4	12. 9
Massachusetts	45, 845	46, 091	44, 513	42, 329	39, 524	36, 778	32, 950	30, 361	−33. 8	−7. 9
Rhode Island	4, 121	3, 962	3, 918	3, 749	3, 529	3, 583	3, 569	3, 544	−14. 0	−. 7
Connecticut	36, 742	35, 082	33, 576	30, 948	28, 650	26, 105	23, 899	22, 906	−37. 7	−4. 2
New York	191, 786	185, 605	179, 855	172, 520	158, 584	147, 200	144, 002	151, 922	−20. 8	5. 5
New Jersey	48, 791	48, 637	48, 475	46, 215	41, 632	39, 235	37, 955	40, 619	−16. 7	7. 0
Pennsylvania	131, 578	128, 587	126, 601	120, 618	114, 238	107, 358	102, 844	115, 434	−12. 3	12. 2
Northeast	522, 654	510, 336	496, 033	471, 200	436, 388	408, 653	394, 048	418, 057	−20. 0	6. 1
Delaware	7, 957	7, 868	7, 882	7, 211	6, 436	6, 498	6, 174	7, 287	−8. 4	18. 0
Maryland [2]	46, 675	45, 386	45, 253	43, 655	41, 819	40, 627	39, 975	43, 883	−6. 0	9. 8
Virginia	72, 299	72, 084	71, 364	67, 142	64, 743	61, 765	64, 685	72, 256	−. 1	11. 7
West Virginia	21, 969	22, 176	21, 843	20, 870	19, 270	18, 658	17, 870	20, 229	−7. 9	13. 2
North Carolina	90, 071	93, 840	96, 314	88, 394	80, 192	73, 917	76, 810	87, 836	−2. 5	14. 4
Kentucky	109, 253	109, 993	107, 768	98, 970	89, 016	81, 579	79, 125	82, 650	−24. 3	4. 5
Tennessee	92, 614	92, 577	87, 888	79, 381	71, 818	65, 433	65, 830	70, 121	−24. 3	6. 5
Appalachian	440, 838	443, 924	438, 312	405, 623	373, 294	348, 477	350, 469	384, 262	−12. 8	9. 6
South Carolina	45, 948	45, 383	47, 671	42, 611	39, 843	37, 590	37, 868	40, 542	−11. 8	7. 1
Georgia	82, 037	82, 817	85, 736	81, 264	74, 249	66, 344	69, 538	78, 919	−3. 8	13. 5
Florida	38, 101	38, 955	36, 338	36, 681	35, 893	30, 313	31, 363	40, 615	6. 6	29. 5

Alabama	81, 859	84, 280	86, 150	81, 838	74, 460	66, 564	66, 306	70, 255	−14. 2	6. 0
Southeast	247, 945	251, 435	255, 895	242, 394	224, 445	200, 811	205, 075	230, 331	−7. 1	12. 3
Michigan	174, 308	175, 879	175, 437	166, 059	152, 552	144, 988	144, 940	155, 705	−10. 7	7. 4
Wisconsin	356, 936	350, 860	336, 216	316, 617	284, 944	262, 072	244, 152	243, 546	−31. 8	−. 2
Minnesota	375, 990	375, 808	374, 627	351, 929	324, 655	304, 641	273, 364	257, 698	−31. 5	−5. 7
Lake States	907, 234	902, 547	886, 280	834, 605	762, 151	711, 701	662, 456	656, 949	−27. 6	−. 8
Ohio	239, 059	233, 312	226, 070	206, 010	184, 843	167, 463	160, 916	162, 263	−32. 1	. 8
Indiana	236, 266	237, 168	233, 335	214, 775	191, 603	176, 468	168, 391	169, 400	−28. 3	. 6
Illinois	418, 970	410, 999	399, 503	361, 585	309, 466	269, 947	248, 260	230, 713	−44. 9	−7. 1
Iowa	705, 589	690, 573	686, 500	657, 128	593, 153	525, 939	478, 470	437, 801	−38. 0	−8. 5
Missouri	229, 377	231, 983	234, 767	219, 933	209, 281	197, 529	193, 533	198, 389	−13. 5	2. 5
Corn Belt	1, 829, 261	1, 804, 035	1, 780, 175	1, 659, 431	1, 488, 346	1, 337, 346	1, 249, 570	1, 198, 566	−34. 5	−4. 1
Mississippi	100, 368	102, 366	101, 625	95, 288	88, 308	83, 744	88, 716	99, 342	−1. 0	12. 0
Arkansas	72, 513	73, 862	74, 655	71, 707	67, 654	63, 695	66, 536	72, 477	(3)	8. 9
Louisiana	55, 098	55, 968	56, 670	53, 583	50, 356	48, 070	51, 693	55, 826	1. 3	8. 0
Delta States	227, 979	232, 196	232, 950	220, 578	206, 318	195, 509	206, 945	227, 645	−. 1	10. 0
North Dakota	141, 230	134, 690	131, 433	127, 484	110, 390	91, 461	80, 778	76, 146	−46. 1	−5. 7
South Dakota	127, 706	120, 720	119, 459	115, 309	107, 451	98, 788	87, 222	83, 109	−34. 9	−4. 7
Nebraska	309, 826	289, 943	280, 965	262, 329	231, 652	204, 174	175, 923	160, 983	−48. 0	−8. 5
Kansas	284, 248	276, 997	262, 765	234, 311	200, 365	171, 535	151, 216	148, 150	−47. 9	−2. 0
Great Plains	863, 010	822, 350	794, 622	739, 433	649, 858	565, 958	495, 139	468, 388	−45. 7	−5. 4
Texas	431, 746	426, 861	423, 745	394, 233	355, 482	323, 358	292, 078	304, 686	−29. 4	4. 3
Oklahoma	153, 679	152, 996	152, 230	141, 875	129, 839	116, 780	107, 829	111, 400	−27. 5	3. 3
Texas-Oklahoma	585, 425	579, 857	575, 975	536, 108	485, 321	440, 138	399, 907	416, 086	−28. 9	4. 0

See footnotes at end of table.

TABLE 15.—*Farm-mortgage debt: Total amount, Jan. 1, 1940–47, and percentage change 1940–47 and 1946–47, by States* [1]—Continued

State and region	1940	1941	1942	1943	1944	1945	1946	1947	Percentage change	
									1940–47	1946–47
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*Percent*	*Percent*
Montana	66, 118	65, 543	61, 068	53, 233	46, 187	41, 684	39, 904	40, 912	−38. 1	2. 5
Idaho	78, 763	79, 732	79, 377	73, 767	65, 521	58, 494	54, 768	56, 522	−28. 2	3. 2
Wyoming	34, 009	34, 014	32, 519	29, 416	26, 223	24, 951	24, 025	25, 414	−25. 3	5. 8
Colorado	75, 005	74, 449	73, 303	66, 680	60, 136	58, 064	59, 444	66, 738	−11. 0	12. 3
New Mexico	27, 499	25, 938	24, 828	23, 872	23, 727	24, 924	25, 092	29, 477	7. 2	17. 5
Arizona	28, 933	28, 002	27, 371	25, 424	23, 005	22, 334	22, 541	27, 117	−6. 3	20. 3
Utah	36, 650	36, 600	35, 769	33, 011	27, 570	25, 720	25, 592	27, 805	−24. 1	8. 6
Nevada	10, 213	9. 530	9, 538	8, 027	6, 645	6, 120	6, 477	7, 523	−26. 3	16. 1
Mountain	357, 190	353, 808	343, 773	313, 430	279, 014	262, 291	257, 843	281, 508	−21. 2	9. 2
Washington	106, 857	104, 305	100, 114	91, 411	81, 339	73, 995	73, 527	74, 093	−30. 7	. 8
Oregon	90, 421	88, 556	86, 732	81, 115	74, 448	69, 218	68, 779	78, 862	−12. 8	14. 7
California	407, 585	398, 086	381, 416	355, 647	328, 158	318, 845	317, 962	342, 608	−15. 9	7. 8
Pacific	604, 863	590, 947	568, 262	528, 173	483, 945	462, 058	460, 268	495, 563	−18. 1	7. 7
UNITED STATES	6, 586, 399	6, 491, 435	6, 372, 277	5, 950, 975	5, 389, 080	4, 932, 942	4, 681, 720	4, 777, 355	−27. 5	2. 0

[1] Data for years 1941–46 are revisions of those published previously.
[2] Includes District of Columbia.
[3] Less than 0.05 percent.

1946, the 1947 debt is less than that for any other year since 1914 and is less than half the peak of 10,786 million dollars reported for January 1, 1923. The increase of 2.0 percent in mortgage debt during 1946 is in contrast to declines of 5.1 percent for 1945 and 8.5 percent for 1944.

Indebtedness secured by farm real estate was up during 1946 in all regions except the Great Plains, the Corn Belt, and the Lake States (fig. 11). The largest increase occurred in the Southeast where debt was up a little more than 12 percent. Increases of between 9 and 10 percent were indicated for the Delta, Appalachian, and Mountain States. In all, 37 States experienced debt increases in 1946, as compared with 14 States in 1945, and 3 in 1944. Florida, Arizona, Delaware, New Mexico, and Nevada reported increases of 15 percent or more.

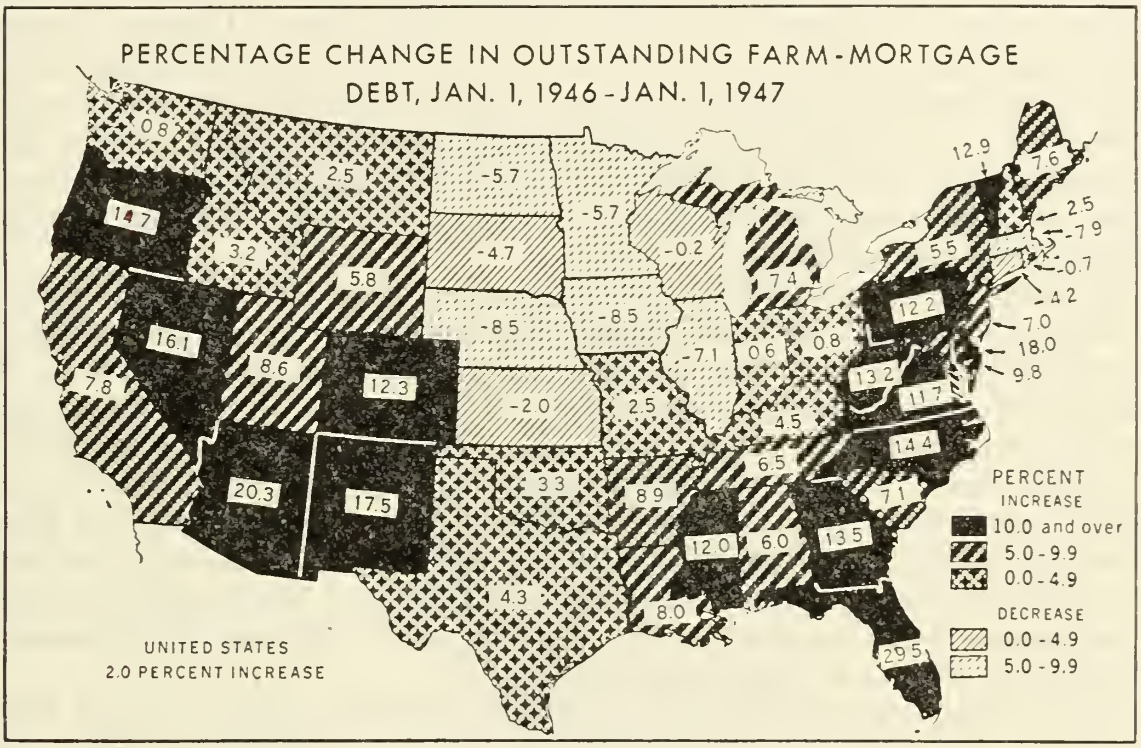

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FIGURE 11.—The percentage change in the farm-mortgage debt during 1946 by States indicates only one major area of decline. In general, this area embraces the principal Corn Belt and Great Plains States. The largest increases in debt occurred in certain of the Western and Atlantic Coastal States. Many of the States which showed increases during 1946 are still substantially below their 1940 figure. In only 3 States was the farm-mortgage debt on January 1, 1947, higher than on January 1. 1940.

The Great Plains showed the greatest decline in mortgage debt, but the reduction for this region in 1946 was only 5.4 percent, or a little less than half the 1945 rate. The largest percentage decrease for any State in 1946 was the 8.5 percent reported for both Nebraska and Iowa. Other significant declines occurred in Illinois, in the Corn Belt; Minnesota, in the Lake States; and Massachusetts and Connecticut, in the Northeast.

The revised estimates of farm-mortgage debt for the period since 1940 indicate somewhat larger debt repayments during World War II than were reported in earlier estimates. Debt secured by farm real estate on January 1, 1946, proved to be down 29 percent from the total at the beginning of 1940 compared with a reduction of approximately 23 percent reported previously. The volume of repayments was greater than the net reduction in debt of about 2 billion dollars, as mortgage lenders recorded approximately 5 billion dollars in new and renewed mortgages during 1940–45.

Including renewals, a greater dollar amount of mortgages was recorded during 1946 than during any year since 1934. This occurred despite the fact that farm income not only continued high but actually increased. Farmers' expenditures for new equipment, improvements, and family living became much greater than during the war. Moreover, many farmers bought bigger or better farms or expanded their present ones, as is indicated by the fact that farm transfers during 1946 were the highest on record. The net effect of these various factors was an upward turn in the trend of farm real estate debt. With debt increasing during 1946 and with total debt near what would appear to be a minimum considering the size and value of the agricultural plant, it seems likely that farm-mortgage debt may increase again in the immediate future—at least, further declines are not expected for the country as a whole.

Although the reduction in mortgage debt after 1940 was the largest percentagewise that had taken place for several decades, probably the most striking change between 1940 and 1945 was the decline in the number of farms under mortgage. During this period mortgaged farms throughout the country dropped from a total of 2,363,777 to 1,711,665, or 27.6 percent (table 16).[17] A small part of this decline was accounted for by the 4.0 percent drop in the total number of farms from 6,096,799 in 1940 to 5,859,169 in 1945. The 27.6 percent decrease in number of mortgaged farms between 1940 and 1945 compares with an increase of 0.6 percent between 1935 and 1940 and a decrease of 6.9 percent between 1930 and 1935.

In 1945 mortgaged farms represented only 29.2 percent of all farms compared with 38.8 percent in 1940 and 34.5 percent in 1935. The comparison between 1945 and 1935 is particularly interesting, as both of these years were near the end of periods marked by substantial debt liquidation. During 1930–34, farms became free of debt as the result of foreclosures, but even though farm-mortgage debt declined about 20 percent, the number of mortgaged farms was down only 7 percent. During 1940–44, farms became free of debt as the result of high wartime incomes, but both debt and number dropped approximately one-fourth. In the earlier period it was the farms with a high ratio of debt to value that were becoming free of debt, whereas a decade later it was those with a low ratio. By 1945 most of the farms that had been acquired by lenders during the 1930's had been resold to private farm operators and investors. Because many of these sales were mortgage-financed, the proportion of farms under mortgage in 1945 was somewhat higher than otherwise would have been the case.

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[17] Cooperative report, 1945, UNITED STATES BUREAU OF THE CENSUS and UNITED STATES BUREAU OF AGRICULTURAL ECONOMICS. FARM-MORTGAGE DEBT IN THE UNITED STATES.

TABLE 16.—*Number of all farms and of mortgaged farms, with average debt per farm, by divisions, 1940 and 1945*

Geographic division	All farms		Mortgaged farms						
	1940	1945	1940	1945	Percentage change 1940–45	Percentage of all farms		Average debt per farm	
						1940	1945	1940	1945
	Number	*Number*	*Number*	*Number*	*Percent*	*Percent*	*Percent*	*Dollars*	*Dollars*
Northeast	483, 290	497, 788	202, 545	166, 001	−18. 0	41. 9	33. 3	2, 580	2, 462
Appalachian	1, 104, 123	1, 081, 606	304, 575	195, 069	−36. 0	27. 6	18. 0	1, 447	1, 786
Southeast	647, 585	658, 170	232, 429	162, 542	−30. 1	35. 9	24. 7	1, 067	1, 235
Lake States	571, 675	541, 965	278, 750	229, 773	−17. 6	48. 8	42. 4	3, 255	3, 097
Corn Belt	1, 101, 189	1, 052, 652	459, 072	345, 522	−24. 7	41. 7	32. 8	3, 985	3, 871
Delta States	657, 773	591, 592	259, 902	150, 865	−42. 0	39. 5	25. 5	877	1, 296
Great Plains	423, 805	391, 173	187, 328	142, 492	−23. 9	44. 2	36. 4	4, 607	3, 972
Texas-Oklahoma	597, 689	549, 767	206, 413	151, 833	−26. 4	34. 5	27. 6	2, 836	2, 899
Mountain	233, 497	212, 527	100, 091	68, 460	−31. 6	42. 9	32. 2	3, 569	3, 831
Pacific	276, 173	281, 929	132, 672	99, 108	−25. 3	48. 0	35. 2	4, 559	4, 662
United States	6, 096, 799	5, 859, 169	2, 363, 777	1, 711, 665	−27. 6	38. 8	29. 2	2, 786	2, 882

The sharpest drop in number of mortgaged farms between 1940 and 1945 occurred for those operated by tenants and managers. However, the total number of tenant and manager-operated farms decreased considerably, while the number of owner-operated farms increased, and the reduction in the proportion mortgaged was much the same for all tenure groups. As in other years, a higher proportion of owner-operated farms was encumbered than was the case with farms operated by tenants and managers.

The South reported the largest decline in number of mortgaged farms during the 5-year period, the lowest proportion encumbered at the end of the period, and the greatest increase in the average debt per mortgaged farm. Although indicating to some extent a tendency toward larger farm units, these changes stem from the fact that, because of higher incomes, many small farm owners no longer find it necessary to obtain small production loans on the security of farm real estate. This practice in the past kept the average size of farm-mortgage loans in the South low. The Mountain States also showed a considerable decrease in the number of mortgaged farms and a substantial increase in debt per farm, but here these changes appear to be associated largely with an increase in the size of farm units. Higher land values and increased costs for equipment and improvements also resulted in larger loans being made during this period in these areas. Although these were factors tending toward larger average debt generally, they were offset by increased debt repayments in other areas.

The number of farms under mortgage in the years since 1945 is not available, but it is likely that the number declined further during 1945 and changed little during 1946. Although the debt itself was up at the end of 1946, a further reduction in the total number of farms through the consolidation of farm units may have offset any increase in the number of mortgaged farms. It is possible, of course, that the proportion under mortgage may have increased.

The larger and more valuable farms continued to be more frequently mortgaged than other farms. Whereas in 1945 only 29.2 percent of all farms were under mortgage, 32.6 percent of the land and 35.3 percent of the value was accounted for by mortgaged farms.

Although mortgage debt became larger during 1946, the ratio of debt to the value of all farms dropped further to about 8 percent as the result of an increase of more than 10 percent in farm real estate values. The ratio, which stood at 9 percent at the beginning of 1946 and at nearly 20 percent in 1940, had been dropping almost continuously since 1933 when it reached a high of about 28 percent. In the case of mortgaged farms, the ratio of debt to value was down from 41.5 percent in 1940 to 30.2 percent in 1945. It is important to note that the fluctuations in these ratios have been due more to changes in values than to changes in debt. Furthermore, they tend to obscure the fact that many individual farmers have substantial debt obligations in relation to the value of their farms.

The rise in farm-mortgage debt during 1946 was reflected in the holdings of each of the major lender groups, except the Federal land banks and Federal Farm Mortgage Corporation (table 17). The loans held by the latter agencies continued the downward trend that has been evident since 1937. Those of the Federal land banks

TABLE 17.—*Farm-mortgage debt: Total outstanding and amounts held by major lender groups, United States, Jan. 1, 1940–47, with percentage change 1940–47 and 1946–47*

[In thousands of dollars]

Year	Total debt [1]	Federal land banks [2]	Federal Farm Mortgage Corporation [2] [3]	Farmers Home Administration [4]	Life insurance companies [2]	Insured commercial banks	Individuals and others [1]
1940	6, 586, 399	2, 009, 820	713, 290	38, 566	984, 290	534, 170	2, 306, 263
1941	6, 491, 435	1, 957, 184	685, 149	73, 093	1, 016, 479	543, 408	2, 216, 122
1942	6, 372, 277	1, 880, 784	634, 885	122, 104	1, 063, 166	535, 212	2, 136, 126
1943	5, 950, 975	1, 718, 240	543, 895	163, 681	1, 042, 939	476, 676	2, 005, 544
1944	5, 389, 080	1, 452, 886	429, 751	176, 607	986, 661	448, 433	1, 894, 742
1945	4, 932, 942	[5] 1, 209, 676	[5] 347, 307	178, 969	933, 723	449, 582	1, 813, 685
1946	4, 681, 720	[5] 1, 078, 952	[5] 239, 365	184, 035	884, 312	507, 298	1, 787, 758
1947	4, 777, 355	976, 748	146, 621	190, 128	890, 161	683, 229	1, 890, 468
Percentage Change							
1940–47	−27. 5	−51. 4	−79. 4	393. 0	−9. 6	27. 9	−18. 0
1946–47	2. 0	−9. 5	−38. 7	3. 3	. 7	34. 7	5. 7

[1] Data for years 1941–46 are revisions of those published previously.

[2] Include regular mortgages, purchase-money mortgages, and sales contracts.

[3] Loans held by Federal Farm Mortgage Corporation are made on its behalf by Land Bank Commissioner.

[4] Successor to Farm Security Administration. Data for 1940 include only tenant-purchase loans and construction loans to individuals. Thereafter, data include farm-development (special real estate) loans beginning 1941, farm-enlargement loans beginning 1944, flood and windstorm real estate restoration loans from 1944 to 1946, and project-liquidation loans beginning 1946. Data also include similar loans from State Rural Rehabilitation Corporation trust funds.

[5] Revised.

dropped below the billion dollar level for the first time since 1925, amounting to 977 million dollars on January 1, 1947. This was only about half the amount carried on their books at the beginning of 1940 and represents a decline of approximately 10 percent during 1946, which was about the same as in 1945.

The Federal Farm Mortgage Corporation reported the largest percentage decline in farm-mortgage holdings during 1946 of any of the major lender groups. Its loans dropped below 150 million dollars on January 1, 1947, compared with loans outstanding of about 240 million dollars a year earlier. This marks a decline of nearly 40 percent during 1946 and of approximately 80 percent since 1940. The accelerated rate at which the loans held by the Federal Farm Mortgage Corporation have declined in recent years can be attributed largely to changes in the regulations permitting the Federal land banks to take over "eligible" loans from the Corporation and to make loans for a higher proportion of the appraised value of farm real estate.

The Farmers Home Administration (successor to Farm Security Administration) further increased its outstanding loans during 1946 to a new peak of 190 million dollars at the beginning of 1947, at which time they were approximately five times as great as at the beginning of 1940. The outstanding loans of this agency increased rapidly during 1940, 1941, and 1942, but the amount and rate of increase since has been small because of certain legal limitations on the size of loans, a reluctance to lend extensively at prevailing high land values, and increased loan repayments.

Life insurance companies increased their farm-mortgage investments during 1946 for the first time since 1941, their loans rising from a little more than 884 million dollars on January 1, 1946, to about 890 million dollars at the beginning of 1947. Although small, this increase was in contrast to a decline of approximately 5 percent in 1945. Their increased mortgage portfolio, however, was still about 10 percent below the 1940 total and, except for 1946, below that for any year since the beginning of World War I.

Banks, as indicated by reports for insured commercial banks, showed the greatest percentage increase in mortgage holdings during 1946 of any of the major lender groups. Farm-mortgage loans of insured banks increased 35 percent during the 12-month period, rising from about 507 million dollars at the beginning of 1946 to about 683 million dollars at the beginning of 1947. This compares with a rise of 13 percent during 1945 and almost no increase during 1944. The sharp upturn in bank loans has brought them well above the 1940 level and to the highest point reached by insured commercial banks since loan data were first reported for this group in 1935.

Loans held by individuals and miscellaneous lenders also increased substantially during 1946. The 6-percent increase during 1946 compares with a decrease of nearly 2 percent for 1945. The amount of loans held by this group at the beginning of 1947, however, was still 18 percent below the amount held at the beginning of 1940. The estimates presented for this lender group are somewhat lower than previously reported, as a result of revisions.

As the above would indicate, marked changes have taken place since 1940 in the proportion of outstanding farm-mortgage loans held by the various lender groups (fig. 12). Loans of the Federal land banks and Federal Farm Mortgage Corporation accounted for not quite 25 percent of the total in 1947 compared with a little more than 40 percent in 1940. In direct contrast, the Farmers Home Administration increased its proportion from less than 1 percent to about 4 percent. Life insurance companies also showed an increase and now hold almost 19 percent of the total mortgage loans compared with 15 percent in 1940. Of the non-Federal lending agencies, insured commercial banks experienced the sharpest increase, particularly during recent years, and in 1947 held nearly 15 percent of the total farm-mortgage loans, or almost twice the proportion held in 1940. Individuals and miscellaneous lenders showed the smallest change, their proportion increasing from about 35 percent to approximately 40 percent during the same period. As a result of these changes, private institutions and individuals held 72 percent of the total mortgage loans in 1947 compared with 58 percent in 1940.

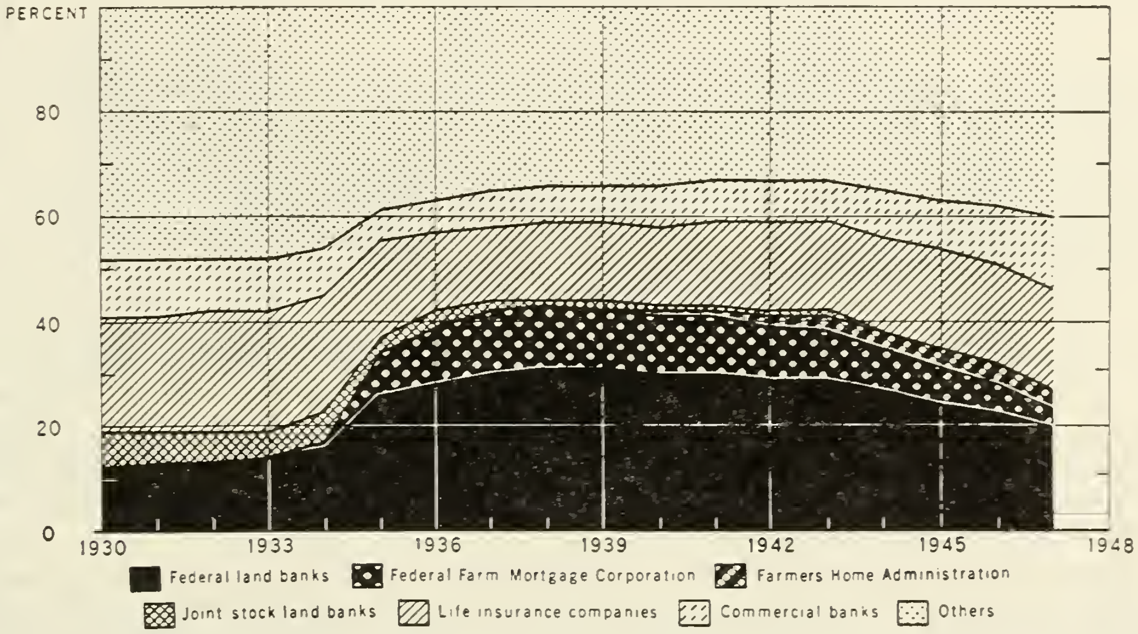

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FIGURE 12.—PERCENTAGE OF FARM-MORTGAGE DEBT HELD BY SELECTED LENDERS, UNITED STATES, JANUARY 1, 1930–47

Private institutions and individuals further increased their share of the total farm-mortgage loans during 1946, and at the beginning of 1947 they held 72 percent of the total. The sharpest increase was in the loans held by insured commercial banks. Liquidation has been particularly marked in the loans of the Federal Farm Mortgage Corporation but also quite considerable in those of the Federal land banks. The Federal and federally sponsored agencies now hold a substantially smaller proportion of all mortgage loans than they did in 1935.

NON-REAL-ESTATE DEBT

On January 1, 1947, the total non-real-estate or "short-term" debt of farmers is estimated to have been nearly 3.5 billion dollars.[18] This was about 22 percent larger than the amount outstanding a year earlier.

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[18] This 3.5 billion dollars excludes the nonrecourse loans made or guaranteed by the Commodity Credit Corporation which are discussed at the end of this section.

Of this debt almost 2.0 billion dollars represented loans to farmers by commercial banks and the Federal and federally sponsored lending agencies (table 18). Such loans were 17 percent greater than on January 1, 1946 and at the highest level for any January 1 since 1931 but remained substantially below the peak level following World War I (fig. 13).

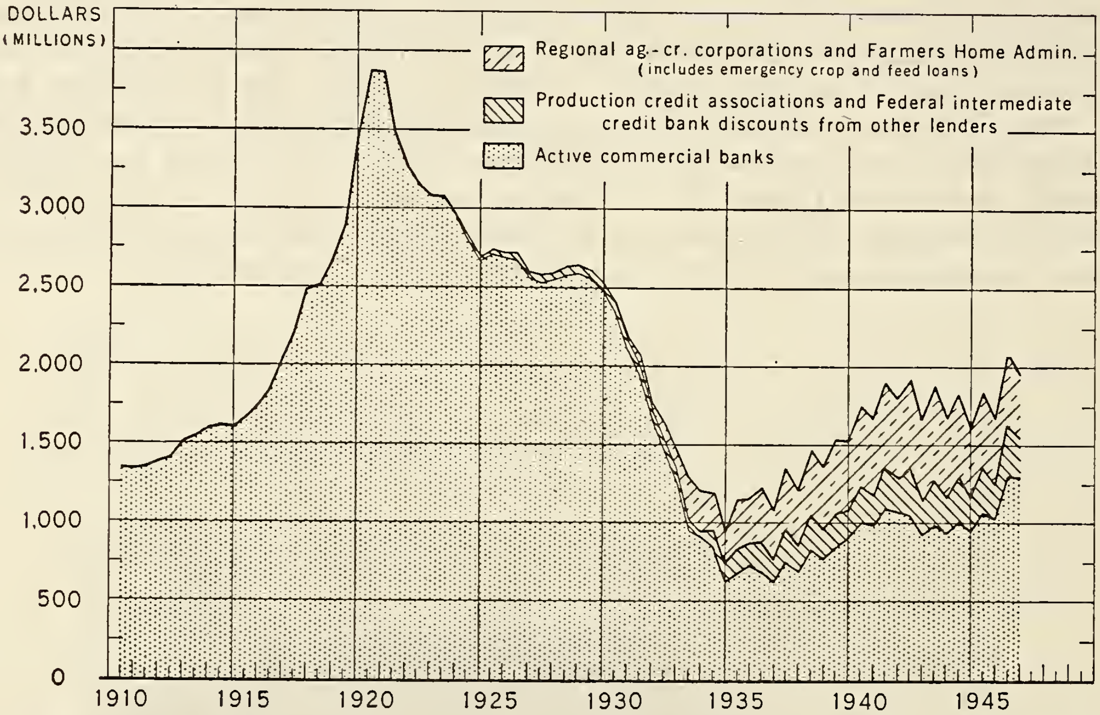

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FIGURE 13.—SHORT-TERM AGRICULTURAL LOANS HELD BY ACTIVE COMMERCIAL BANKS, FEDERAL AND FEDERALLY SPONSORED AGENCIES, UNITED STATES, JANUARY 1 AND JULY 1, 1910–47. (EXCLUDES NONRECOURSE COMMODITY LOANS HELD OR GUARANTEED BY CCC.)

During and immediately following World War I short-term loans of banks increased rapidly. The trend of such loans during the World War II period indicated no similar increase in such debt. Not until after the war was there any pronounced increase in borrowing, and so far, this has been relatively small as compared with the lending which followed World War I. Since the early thirties the Federal and federally sponsored agencies have made a substantial proportion of the short-term agricultural loans.

Loans of banks, which amounted to 1.3 billion or two-thirds of the non-real-estate loans (other than Commodity Credit Corporation loans) of all institutional lenders, increased 25 percent during 1946. The 230 million dollars in loans held on January 1, 1947 by the production credit associations was 18 percent greater than the figure for a year earlier and was a record figure for any January 1 in the history of the production credit associations. Discounts by the Federal intermediate credit banks for private agricultural credit corporations increased 20 percent during 1946, from 26.5 million dollars to 31.7 million. The increases in the loans of these three types of institutions indicate rather well a widespread rise in the use of non-real-estate credit by farmers.

The Farmers Home Administration (which came into operation by act of Congress on November 1, 1946) consolidates the lending functions of the Farm Security Administration and the Emergency Crop and Feed Loan Office of the Farm Credit Administration. The non-real-estate agricultural loans of the new organization are called production and subsistence loans. The Farm Security Administration rural rehabilitation loans and the Farm Credit Administration crop and feed loans will be gradually liquidated. The total of all outstanding non-real-estate loans of the Farmers Home Administration on January 1, 1947, was 402 million dollars. This included about 5 million dollars of outstanding production and subsistence loans made in the last 2 months of 1946; 280 million dollars in outstanding rural rehabilitation loans; and nearly 117 million of crop and feed loans. On January 1, 1946, rural rehabilitation loans and crop and feed loans amounted to 278 million and 129 million, respectively, or a total of 407 million dollars. The decline in the loans of these Federal agencies, which has been under way throughout the war period, results primarily from smaller loan allotments for the Farm Security Administration, cancellation of more than 5 million in old-crop and feed loans during 1946, and heavy repayments made possible by prosperous farm conditions.

Another Federal agency which extends non-real-estate agricultural credit in certain emergencies is the Regional Agricultural Credit Corporation. Although in liquidation since 1934, its loans rose beyond 50 million in 1943 during a brief program of financing wartime food production. Since then the liquidation program has been resumed and on January 1, 1947 outstanding loans amounted to only 2.6 million dollars.

Changes during the war in outstanding non-real-estate loans of all these institutions—both Federal and private—varied considerably from area to area. Data permitting comparison of changes in such non–CCC loans are available only for the period since 1943 (table 19). Between 1943 and 1946, 22 States showed declines in non-real-estate farm loans. The declines were as large as 15 percent in the Dakotas and nearly 18 percent in West Virginia. In the same period there were increases in loans in the majority of the States; they ranged from less than 2 percent in Pennsylvania, Florida, and Arkansas to about 42 percent in Massachusetts and nearly 60 percent in Vermont. For the United States as a whole, however, there was practically no change in the volume of outstanding loans between 1943 and 1946.

During the one postwar year of 1946 these loans rose about 17 percent—a greater increase than for any other year during the war period. Furthermore, increases were rather general, with decreases occurring only in five States—Rhode Island, North Dakota, South Dakota, Montana, and Wyoming. By regions, increases ranged from nearly 8 percent in the Great Plains to 29 percent in the Northeast.

The amount of non-real-estate credit used per farm varies considerably in different regions of the country. As an indication, outstanding loans of the principal lending institutions expressed in average amounts per farm (both those using and not using credit) range from less than $200 in the Delta States, Southeast, and Appalachian regions to more than $600 in the Great Plains and Pacific regions, and about $900 and higher in the Mountain region (table 20). Similar differences between regions are shown by the average size of new loans made by the Federal and federally sponsored lenders (table 21).

TABLE 18.—*Non-real-estate loans to farmers by principal credit institutions: Amounts outstanding on specified dates, United States, 1915–47* [1]

[In thousands of dollars]

Date	Commercial banks		Agencies supervised by the Farm Credit Administration					Farmers Home Administration [5]		Commodity Credit Corporation		Total	
			Production credit associations [3]		Federal intermediate credit banks [4]								
	Excluding Commodity Credit Corporation guarantees	Including Commodity Credit Corporation guarantees [2]	Excluding Commodity Credit Corporation guarantees	Including Commodity Credit Corporation guarantees [2]	Excluding Commodity Credit Corporation guarantees	Including Commodity Credit Corporation guarantees [2]	Regional agricultural credit corporations	Emergency crop and feed loans [6]	Production and subsistence loans [7]	Loans held	Institutional loans guaranteed [2] [8]	Excluding Commodity Credit Corporation loans held or guaranteed	Including Commodity Credit Corporation loans held or guaranteed [2] [8]
1915: Jan. 1	1,605,958											1,605,958	
1920: Jan. 1	3,453,794											[9] 3,455,253	
1921: Jan. 1	3,869,891							3,104				[9] 3,873,788	
1925: Jan. 1	2,674,237				18,760			2,513				[9] 2,713,162	
1930: Jan. 1	2,490,742				47,283			7,976				2,546,001	
1935:													
Jan. 1	627,878	840,887	60,459		55,083		87,087	111,238	5,600	37,162	213,009	947,345	1,197,516
July 1	670,877	805,292	106,402		57,705		72,759	198,240	47,249	151,735	134,415	1,153,232	1,439,382
1936:													
Jan. 1	735,257	743,731	93,400		46,518		43,394	172,470	62,900	271,219	8,474	1,153,939	1,433,632
July 1	690,335	692,238	139,062		53,959		36,020	176,415	128,691	236,268	1,903	1,224,482	1,462,653
1937:													
Jan. 1	620,866	620,920	104,481		40,508		25,282	164,762	131,600	204,511	54	1,087,499	1,292,064
July 1	757,883	757,926	158,752		47,306		22,908	189,186	171,394	116,827	43	1,347,429	1,464,299
1938:													
Jan. 1	682,545	821,935	136,918		39,974		15,588	171,983	162,802	173,134	139,390	1,209,810	1,522,334
July 1	827,715	971,805	183,296		42,703		14,788	184,656	207,239	228,913	144,090	1,460,397	1,833,400
1939:													
Jan. 1	788,716	1,109,489	146,825		32,612		11,080	170,952	209,806	308,950	320,773	1,359,991	1,989,714
July 1	841,343	1,234,265	186,945		39,794		10,234	179,812	280,528	330,097	392,922	1,538,656	2,261,675
1940:													
Jan. 1	900,079	1,134,573	153,425		32,316		8,005	167,795	276,138	208,193	[10] 237,065	1,537,758	[10] 1,983,016
July 1	[10] 1,000,329	1,228,153	199,219		40,033		7,768	180,798	320,324	150,183	[10] 227,856	[10] 1,748,471	[10] 2,126,510
1941:													
Jan. 1	983,774	1,326,120	170,686	178,866	32,371	33,116	5,855	167,862	312,717	252,287	[10] 377,175	1,673,265	[10] 2,302,727
July 1	[10] 1,093,786	1,204,146	219,903	221,788	42,041	42,106	6,658	178,818	362,545	214,854	[10] 115,036	[10] 1,903,751	[10] 2,233,641
1942:													
Jan. 1	[10] 1,073,198	1,497,205	185,611	201,589	37,382	37,939	5,532	163,792	339,083	133,018	[10] 477,136	[10] 1,804,598	[10] 2,414,752
July 1	[10] 1,054,897	1,203,578	245,846	250,460	45,263	45,615	4,249	176,062	397,274	159,585	[10] 165,545	[10] 1,923,591	[10] 2,248,721

See footnotes at end of table.

TABLE 18.—*Non-real-estate loans to farmers by principal credit institutions: Amounts outstanding on specified dates, United States, 1915–47* [1]

[In thousands of dollars]

Date	Commercial banks		Agencies supervised by the Farm Credit Administration					Farmers Home Administration [5]		Commodity Credit Corporation		Total	
			Production credit associations [3]		Federal intermediate credit banks [4]								
	Excluding Commodity Credit Corporation guarantees	Including Commodity Credit Corporation guarantees [2]	Excluding Commodity Credit Corporation guarantees	Including Commodity Credit Corporation guarantees [2]	Excluding Commodity Credit Corporation guarantees	Including Commodity Credit Corporation guarantees [2]	Regional agricultural credit corporations	Emergency crop and feed loans [6]	Production and subsistence loans [7]	Loans held	Institutional loans guaranteed [2] [8]	Excluding Commodity Credit Corporation loans held or guaranteed	Including Commodity Credit Corporation loans held or guaranteed [2] [8]
1943:													
Jan. 1	[10] 924,236	[10] 1,490,908	182,658	205,873	37,854	38,182	3,991	155,456	362,343	104,366	[10] 668,315	[10] 1,666,538	[10] 2,439,219
July 1	[10] 982,701	[10] 1,330,281	254,841	266,334	39,708	40,518	53,754	164,948	378,509	57,968	[10] 411,994	[10] 1,874,461	[10] 2,344,423
1944:													
Jan. 1	[10] 935,764	[10] 1,328,480	196,637	210,232	33,882	34,137	32,047	146,181	338,714	93,104	[10] 496,079	[10] 1,683,225	[10] 2,272,408
July 1	1,002,167	[10] 1,288,774	266,396	274,147	34,816	35,316	20,561	156,187	342,246	76,537	[10] 356,688	1,822,373	[10] 2,255,598
1945:													
Jan. 1	[10] 948,829	[10] 1,377,405	188,306	203,794	29,792	29,966	12,195	138,068	302,101	146,670	[10] 536,022	[10] 1,619,291	[10] 2,301,983
July 1	[10] 1,068,479	[10] 1,268,387	262,781	266,693	29,566	29,658	9,522	145,908	310,320	46,016	[10] 257,503	[10] 1,826,576	[10] 2,130,095
1946:													
Jan. 1	[10] 1,033,800	[10] 1,177,042	194,788	201,135	26,487	26,487	6,151	128,901	278,280	98,904	[10] 178,089	[10] 1,668,407	[10] 1,945,400
July 1	[10] 1,300,807	[10] 1,302,716	300,385	300,649	33,515	33,515	3,820	135,259	315,288	32,996	[10] 6,766	[10] 2,089,074	[10] 2,128,836
1947:													
Jan. 1	[10] 1,289,105	[10] 1,333,048	230,025	238,321	31,701	31,701	2,560	116,733	285,299	[10] 7,246	57,628	[10] 1,955,423	[10] 2,020,297

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[1] Continental United States only.

[2] Guarantees are loans secured by agricultural commodities covered by purchase agreements of the Commodity Credit Corporation. The amount of guaranteed loans held by commercial banks are as derived from C. C. C. reports.

[3] Includes loans of associations in liquidation.

[4] Loans to and discounts for private financing institutions.

[5] Formerly the Farm Security Administration.

[6] Includes seed, feed, crop-production, drought-relief, and orchard-rehabilitation loans made by the Crop and Feed Loan Office of the Farm Credit Administration and its predecessors. Transferred on Oct. 31, 1946, to Farmers Home Administration for liquidation.

[7] Includes rural rehabilitation loans, in liquidation since Oct. 31, 1946; also includes water facility loans.

[8] Includes for the first time some loans to farmers by cooperative marketing associations not shown separately.

[9] Includes loans of War Finance Corporation.

[10] Revised.

TABLE 19.—*Non-real-estate loans to farmers held by principal lending institutions, by States, Jan. 1, 1943, 1946, and 1947* [1]

State and region	Amounts			Percentage change from—	
	Jan. 1, 1943	Jan. 1, 1946	Jan. 1, 1947	Jan. 1, 1943, to Jan. 1, 1946	Jan. 1, 1946, to Jan. 1, 1947
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*Percent*	*Percent*
Maine	8,931	8,901	10,411	−0.3	17.0
New Hampshire	2,091	2,544	2,981	21.7	17.2
Vermont	5,780	9,225	11,773	59.6	27.6
Massachusetts	2,943	4,185	5,122	42.2	22.4
Rhode Island	676	851	784	25.9	−7.9
Connecticut	3,289	3,912	4,352	18.9	11.2
New York	33,249	39,071	51,763	17.5	32.5
New Jersey	6,668	6,295	8,602	−5.6	36.6
Pennsylvania	23,670	23,907	31,953	1.0	33.7
Northeast	87,297	98,891	127,741	13.3	29.2
Delaware	1,625	1,873	2,260	15.3	20.7
Maryland	6,378	7,411	10,638	16.2	43.5
District of Columbia	9	26	18	188.9	−30.8
Virginia	19,629	19,570	24,077	−.3	23.0
West Virginia	6,247	5,126	6,460	−17.9	26.0
North Carolina	15,781	15,594	18,512	−1.2	18.7
Kentucky	24,917	26,907	36,174	8.0	34.4
Tennessee	21,265	25,275	30,744	18.9	21.6
Appalachian	95,851	101,782	128,883	6.2	26.6
South Carolina	17,141	15,243	16,789	−11.1	10.1
Georgia	35,668	33,259	37,824	−6.8	13.7
Florida	17,048	17,339	20,587	1.7	18.7
Alabama	33,063	30,365	35,645	−8.2	17.4
Southeast	102,920	96,206	110,845	−6.5	15.2
Michigan	25,858	28,634	37,234	10.7	30.0
Wisconsin	35,323	38,351	45,166	8.6	17.8
Minnesota	73,282	72,456	73,368	−1.1	1.3
Lake States	134,463	139,441	155,768	3.7	11.7
Ohio	38,872	35,077	46,121	−9.8	31.5
Indiana	35,813	40,489	47,939	13.1	18.4
Illinois	72,720	72,572	85,702	−.2	18.1
Iowa	110,469	107,544	120,771	−2.6	12.3
Missouri	71,749	64,853	82,619	−9.6	27.4
Corn Belt	329,623	320,535	383,152	−2.8	19.5

See footnote at end of table.

TABLE 19.—*Non-real-estate loans to farmers held by principal lending institutions, by States, Jan. 1, 1943, 1946, and 1947* [1]—Continued

State and region	Amounts			Percentage change from—	
	Jan. 1, 1943	Jan. 1, 1946	Jan. 1, 1947	Jan. 1, 1943, to Jan. 1, 1946	Jan. 1, 1946, to Jan. 1, 1947
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*Percent*	*Percent*
Mississippi	43, 068	43, 058	45, 609	0	5. 9
Arkansas	31, 138	31, 724	36, 289	1. 9	14. 4
Louisiana	23, 129	19, 960	23, 484	−13. 7	17. 7
Delta States	97, 335	94, 742	105, 382	−2. 7	11. 2
North Dakota	61, 478	52, 251	50, 581	−15. 0	−3. 2
South Dakota	70, 656	60, 443	59, 199	−14. 5	−2. 1
Nebraska	84, 158	78, 755	81, 448	−6. 4	3. 4
Kansas	87, 957	72, 478	93, 023	−17. 6	28. 3
Great Plains	304, 249	263, 927	284, 251	−13. 3	7. 7
Texas	155, 111	163, 480	203, 791	5. 4	24. 7
Oklahoma	50, 615	55, 734	65, 347	10. 1	17. 2
Texas-Oklahoma	205, 726	219, 214	269, 138	6. 6	22. 8
Montana	36, 992	34, 273	33, 139	−7. 4	−3. 3
Idaho	19, 358	19, 147	21, 831	−1. 1	14. 0
Wyoming	22, 027	20, 164	19, 743	−8. 5	−2. 1
Colorado	52, 615	50, 986	55, 494	−3. 1	8. 8
New Mexico	15, 700	18, 625	21, 775	18. 6	16. 9
Arizona	12, 202	16, 377	20, 872	34. 2	27. 4
Utah	17, 024	20, 443	21, 777	20. 1	6. 5
Nevada	3, 478	3, 953	5, 434	13. 7	37. 5
Mountain	179, 396	183, 968	200, 065	2. 5	8. 7
Washington	21, 899	24, 915	31, 467	13. 8	26. 3
Oregon	14, 476	17, 023	20, 726	17. 6	21. 8
California	93, 586	107, 760	137, 991	15. 1	28. 1
Pacific	129, 961	149, 698	190, 184	15. 2	27. 0
Unallocated	45	3	14	−93. 3	−53. 3
United States	1, 666, 866	1, 668, 407	1, 955, 423	. 1	17. 2

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[1] All active commercial banks, Farmers Home Administration, Emergency Crop and Feed Loan Office, production credit associations, Federal intermediate credit banks, and Regional Agricultural Credit Corporation. Excludes loans made or guaranteed by Commodity Credit Corporation, except a small amount in 1943 held by the Federal intermediate credit banks.

Seasonality in the use of non-real-estate credit is indicated in table 18. For the United States, total outstanding loans of the principal lending institutions were higher on July 1 than on January 1 for every year shown. Regional differences in loans between these two dates are found in table 20. In the South, where crop farming is general, the average loan is substantially larger during the summer growing season than at the end of the year. In other areas, where dairy or mixed farming distribute expenses more evenly throughout the year, the seasonal movement in non-real-estate loans is not so marked.

TABLE 20.—*Average per farm of non-real-estate agricultural loans outstanding from principal credit institutions, by regions, Jan. 1 and July 1, 1946, and January 1, 1947* [1]

Region	Jan. 1, 1946	July 1, 1946	Jan. 1, 1947
Northeast	$196	$257	$253
Appalachian	94	147	119
Southeast	145	229	167
Lake States	255	287	284
Corn Belt	297	334	356
Delta States	159	223	178
Great Plains	$641	$682	$685
Texas-Oklahoma	397	532	482
Mountain	863	1,045	938
Pacific	537	705	680
United States	281	351	328

[1] Insured commercial banks, Farmers Home Administration, Emergency Crop and Feed Loan Office, production credit associations, Federal intermediate credit banks, and Regional Agricultural Credit Corporation. Excludes loans made or guaranteed by the Commodity Credit Corporation. Figures represent outstandings of these institutions divided by the total number of farms shown in the 1945 census.

It has been roughly estimated that, in addition to the non-real-estate debt owed to these principal lending institutions, farmers owed about 1½ billion dollars on January 1, 1947 to such creditors as merchants, dealers, finance companies, and individuals. Few data are available, but a substantial rise during 1946 has been estimated for such debt on the basis of the increase in institutional loans and the substantial expansion in purchases of farm machinery, automobiles, and all types of household equipment.

The recent growth in non-real-estate agricultural credit has resulted primarily from a higher level of prices paid by farmers, expanded operations in many instances, and the increasing availability of both producer and consumer goods for the purchase of which credit is often used. Indications are that the average loan for those using non-real-estate credit has been steadily increasing since 1939. The average size of loan made in 1946 by most of the Federal or federally sponsored agencies was more than double the average loan made in 1938 (table 21). In 1946, emergency crop and feed loans were about 5 percent larger; production credit association loans, 12 percent larger; and Farmers Home Administration loans were 20 percent larger, than in 1945. Increases occurred in all regions of the country.

Notwithstanding the increased use of non-real-estate credit by agriculture as a whole, it is probable that high incomes have permitted many farmers to reduce or pay off their loans. This has been true particularly of farmers who were not expanding their operations and in instances where production expenses were low relative to their incomes.

COMMODITY CREDIT CORPORATION

The foregoing discussion has pertained to the loan obligations of farmers other than the nonrecourse, commodity loans made or guaranteed by the Commodity Credit Corporation. In addition to the estimated 3,459 million dollars of ordinary loans, on January 1, 1947, the CCC loans to individual farmers amounted to 65 million dollars. This is a small amount in comparison with the 277 million of a year earlier and especially with the 773 million dollars of January 1, 1943 when CCC operations were near the peak. Agricultural prices recently have been at such levels that most commodities have moved directly into the market or have been used as a basis for ordinary loans without being pledged as security for price-support loans from the Commodity Credit Corporation.[19] As of the beginning of 1947, the Corporation itself held 7,246 thousand dollars of nonrecourse price-support loans whereas other lending institutions held 57,628 thousand dollars of these loans under purchase agreements with Commodity Credit Corporation (table 18).

Wheat, potatoes, soybeans, and cotton were the principal commodities on which CCC-type loans to individual farmers were outstanding, as of the first of the year. Small amounts were outstanding on miscellaneous crops.

EQUITIES OF PROPRIETORS

The equities or claims of proprietors in the physical and associated financial assets of agriculture totaled 102,912 million dollars on January 1, 1947. The term "proprietors" includes owner-operators, tenants, landlords not living on farms, and the stockholders of corporations that were operating farms. Even the Federal Government and local and State governments are represented among the landlord and owner-operator classes. Owner-operators and landlords both own real estate as well as non-real-estate assets. Tenants are limited to the ownership of personalty such as livestock, machinery and vehicles, harvested crops, and financial assets.

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[19] The revised figures used in this year's balance sheet have been so prepared as to eliminate the influence of over-reporting by financial institutions, which occurred particularly during war years when many banks reported advances in behalf of the Commodity Credit Corporation for purchases of wool and other commodities along with guaranteed loans to farmers. The revised figures also are intended to exclude loans to cooperative organizations but they include certain CCC-guaranteed loans made to individual farmers by cooperative marketing associations. Of the 109,350 thousand dollars of CCC-type loans outstanding on December 31, 1946, only 64,911 thousand were to individual farmers; the rest were to cooperative associations.

TABLE 21.—*Non-real-estate loans to farmers by selected Federal agencies: Average size made during year, by regions, 1938–46*

Year	United States	Northeast [2]	Appalachian [3]	Southeast [4]	Lake States [5]	Corn Belt [6]	Delta States [7]	Great Plains [8]	Texas-Oklahoma	Mountain [9]	Pacific [10]
PRODUCTION CREDIT ASSOCIATIONS [1]											
1938	$1, 237	$1, 202	$588	$564	$760	$1, 098	$652	$1, 553	$2, 000	$5, 142	$4, 382
1939	1, 365	1, 234	648	637	802	1, 321	733	1, 910	2, 321	5, 662	4, 434
1940	1, 505	1, 248	692	719	966	1, 413	818	2, 113	2, 674	5, 803	4, 661
1941	1, 791	1, 407	791	817	1, 188	1, 742	963	2, 676	2, 891	6, 520	5, 088
1942	2, 011	1, 508	944	975	1, 369	2, 073	1, 076	2, 778	3, 123	6, 550	5, 892
1943	2, 160	1, 680	997	1, 044	1, 540	2, 345	1, 082	3, 666	3, 241	6, 759	6, 324
1944	2, 231	1, 829	1, 094	1, 178	1, 610	2, 228	1, 238	3, 475	3, 405	6, 438	7, 035
1945	2, 386	1, 979	1, 139	1, 255	1, 825	2, 372	1, 346	3, 868	3, 504	6, 962	7, 364
1946	2, 666	2, 376	1, 303	1, 360	2, 078	2, 675	1, 481	4, 309	4, 059	7, 424	8, 188
FARMERS HOME ADMINISTRATION											
	Rural rehabilitation—Original loans [11]										
1938	$560	$532	$391	$349	$855	$602	$394	$618	$363	$975	$978
1939	468	794	347	415	525	736	448	186	673	1, 070	1, 133
1940	564	1, 009	288	426	688	697	384	596	718	1, 128	1, 045
1941	622	1, 112	286	358	1, 102	689	496	996	821	1, 107	1, 280
1942	636	818	411	473	1, 003	582	505	536	751	817	811
1943	759	1, 160	430	563	1, 182	1, 060	542	804	677	959	1, 103
1944	1, 095	1, 431	555	487	1, 512	1, 465	701	1, 282	951	1, 309	1, 207
1945	1, 147	1, 443	549	563	1, 631	1, 492	695	1, 484	1, 173	1, 486	1, 383
1946	1, 372	1, 755	666	625	1, 709	1, 667	771	1, 792	1, 477	1, 748	1, 587

	Rural rehabilitation—Supplemental loans [12]										
1938	$214	$429	$166	$155	$313	$256	$117	$270	$224	$395	$530
1939	214	527	182	211	200	286	180	119	168	478	510
1940	215	525	180	165	267	241	163	191	174	432	556
1941	193	486	193	110	376	250	182	190	220	359	513
1942	231	518	243	179	353	266	189	174	226	379	507
1943	287	584	269	228	474	387	215	309	304	472	607
1944	321	621	311	177	569	471	242	461	305	620	775
1945	396	797	330	209	609	579	265	554	434	742	859
1946	480	893	397	253	747	610	327	665	570	873	1,014
	Emergency crop and feed loans [1]										
1938	$112	$178	$77	$99	$100	$99	$67	$158	$129	$190	$239
1939	106	187	81	100	105	99	71	132	126	166	248
1940	120	195	83	114	112	102	81	140	132	168	464
1941	119	205	90	115	117	111	89	149	139	179	250
1942	136	234	107	134	154	141	107	181	139	210	264
1943	155	263	124	152	199	167	131	224	155	236	288
1944	182	287	148	175	244	203	161	260	182	275	309
1945	199	309	168	189	266	221	179	285	205	290	328
1946	209	307	180	203	287	224	189	300	213	299	323

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[1] Calendar-year basis.

[2] Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

[3] Delaware, Maryland, Virginia, West Virginia, North Carolina, Kentucky, and Tennessee.

[4] South Carolina, Georgia, Florida, and Alabama.

[5] Michigan, Wisconsin, and Minnesota.

[6] Ohio, Indiana, Illinois, Missouri, and Iowa.

[7] Mississippi, Arkansas, and Louisiana.

[8] North Dakota, South Dakota, Nebraska, and Kansas.

[9] Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada.

[10] Washington, Oregon, and California.

[11] Excludes loans made by State corporation trust funds. Fiscal-year basis.

[12] Additional loans made to farmers who already have Farm Security Administration loans. Fiscal-year basis.

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Data are insufficient to reveal the distribution of the equities that belong to these various classes of proprietors. Farm operators, including tenants and croppers, are believed to have a much greater aggregate equity than the landlords. Owner-operators have much larger equities than the tenant operators.

The position of proprietors relative to creditors has improved appreciably since the prewar year 1940. The equities of proprietors constitute about 93 percent of the total claims to the assets, at present, leaving the creditors with only a 7-percent share. In 1940, proprietors had only about an 81-percent equity. This more favorable position of the proprietors has three causes: Reduction of debt, increase in the real quantities of both physical and financial assets, and placing of higher unit values on the physical assets. Although common opinion seems to anticipate that the postwar price level will not go back to the prewar basis, the higher unit values may not be maintained. The reduction of debt and the increase in physical quantities represent real gains to the proprietors.

GENERAL FACTORS OF SIGNIFICANCE TO THE BALANCE SHEET OF AGRICULTURE

Changes that occurred in 1946 in the consolidated balance sheet of agriculture were mostly the result of a further sharp rise in prices. Exceptionally high prices for farm products, together with physical production equal to that of the best years, resulted in record-breaking cash farm income and in valuations for each type of asset which are above any so far recorded in this series. For the first time since 1941 indebtedness of farmers rose, but the increase was far smaller than the increase in assets. Accordingly, equities increased, and the financial condition of farmers which had improved greatly during the war, was even better at the end of the first postwar year.

It would be a comfortable conclusion to draw from these developments that the high valuation of assets recorded on the balance sheet and the greatly expanded equities are here to stay. In view of the precipitate fall in prices that followed World War I, such a conclusion would be rash. But it may be equally shortsighted and superficial to conclude that because the financial condition of farmers deteriorated severely after 1920 it must necessarily do so again. Historical parallels are instructive, but present prospects for agriculture need also to be examined in the light of the forces responsible for the high valuations that appear on the balance sheet for 1947, and of the probabilities that these forces will continue in their present strength.

In periods of war and transition to peace the financial condition of farmers is particularly influenced by forces which lie largely outside the immediate sphere of farming, but which affect it along with the rest of the economy. Among these forces, the operations of the Federal Government and of the banking system are preeminent because of the extent to which they influence both the volume and the flow of money and the volume of income and expenditure generally. Changes in fiscal and financial operations of the magnitude brought on by war and by the return to peace are, therefore, major determinants of income and prices, both on and off the farm. Hence the prominence given to these changes in what follows.

Factors Responsible for Price Rise in 1946

The continuation in 1946 of the upward trend of prices of farm products and other physical assets is remarkable in view of the fact that the basic factors that initiated and sustained the rise during the war were sharply altered in the first postwar year. During the war, increases in production, prices, and income, in agriculture as well as in other segments of the economy, were induced by greatly expanded Federal expenditures for goods and services. In 1940 these expenditures amounted to 6.2 billion dollars. By 1945 they had increased to 75.0 billion dollars. This twelvefold increase in Federal expenditures chiefly for wartime goods and services was possible without reduction of private spending below prewar levels only because the money supply was increased through purchases of Federal securities by commercial and Federal Reserve banks. The increased money supply, activated by Government and private spending, contributed to an increase in national income which permitted private expenditures actually to rise in spite of greatly increased taxes and nonbank purchases of Federal securities.

In 1946, after the war, the pressure on prices exerted by Government buying was greatly reduced. Federal expenditures for goods and services fell from 75.0 billion dollars in 1945 to 20.7 billion dollars in 1946. This decline of 72 percent was accompanied by a reduction of the Federal deficit from 43.6 billion dollars in 1945 to 2.5 billion dollars in 1946, and a reduction in Federal debt of 20 billion dollars. In the absence of a Federal surplus, debt reduction was accomplished by drawing down the Government's deposit balances to a size more appropriate for peacetime needs.

The further advance in prices of farm products and other physical farm assets in 1946 was a delayed reaction to wartime fiscal and financial developments. During the war many would-be buyers were forced to save much of their expanded incomes for lack of things to buy. Priorities, allocations, price ceilings, etc., greatly limited the expansion of non-Federal spending and thereby limited the immediate effects on prices of the enormously increased money incomes that were currently distributed by the war economy. When these restrictions generally were removed in 1946 private expenditures rose 37.5 billion dollars and those of State and local governments increased 1.8 billion dollars above the level of 1945. Thus, despite the fact that Federal expenditures for goods and services declined 54.3 billion dollars, total expenditures (gross national product) fell only 4 percent below the 1945 level.

So sharp an increase in non-Federal expenditures in 1946 was possible partly because highly liquid savings had accumulated in large volume during the war. In part, it was due to the continuance of high national income in 1946. The fact that, reciprocally, these expenditures created income does not invalidate the conclusion that the high national income of 178.2 billion dollars in 1946, as compared with only 81.3 billion in 1940, contributed to the high level of non-Federal expenditures. Disposable personal income alone amounted to 158.4 billion dollars in 1946—a figure higher by far than the entire amount spent for goods and services by public and private buyers in any year before 1942. Moreover, the end of the war brought some relaxation in bond-selling programs. This meant that a larger proportion of disposable income was available for the purchase of goods and services by non-Federal buyers than during the war.

The increase in non-Federal expenditures in 1946 was also partly due to the substantial increase in the use of borrowed funds. For example, bank loans rose by more than 5 billion dollars during the year. Consumer credit extended by others than commercial banks increased by more than 2.6 billion dollars. "New capital" security issues, including those of State and local government units, amounted to 4.6 billion dollars.

Expansion of non-Federal borrowing not only helped to offset the decline in Federal expenditures, thereby giving support to prices, but it also partially offset the shrinkage in deposits that accompanied the reduction of the Federal debt. From an all-time high of 279 billion dollars in February 1946 the gross direct Federal debt was reduced to 259 billion dollars at the year's end. As practically all of the securities that were paid off had been held by commercial banks, their retirement extinguished approximately an equal amount of deposits. Overall shrinkage of deposits in commercial banks, however, amounted to only 11.2 billion dollars. That the shrinkage was smaller was due mainly to the fact that, as commercial bank investments in Government securities declined their loans and investments in other securities rose, although not to the same degree. The deposits that were canceled by debt reduction had never been paid out of the Government's accounts into general circulation. Therefore, their disappearance, like their appearance some months earlier, had little effect on the economy as a whole. The changes were reflected mainly in bank and Treasury statements.

Bank Deposits and Currency as Postwar Price Determinants

Despite the multibillion-dollar shrinkage in Treasury-owned bank deposits, other deposits (and currency) rose during 1946 and are now extremely high. The presence in our economy of so large a volume of deposits and currency, and of the only slightly less liquid Government bonds, is a legacy of war finance that for years may help to support national income and hence the demand for consumers' goods and services. The existence of this ready purchasing power is no guarantee, of course, against recession in business or a decline in prices, as the influence of a large volume of money can be more than offset by conditions that depress confidence and initiative in the community and encourage hoarding. But if such depressive factors should gain the upper hand and recession of business and of prices should occur, the presence of so large a volume of ready purchasing power in the economy would tend to moderate the decline and to hasten recovery to levels above those that existed before the war.

These considerations emphasize the importance of the question, "What is the future volume of deposits in the commercial banking system likely to be?"

A recession in business would probably not reduce the general volume of deposits greatly. In view of deposit insurance and other measures introduced to safeguard depositors it is not likely that deposits would be withdrawn for hoarding, as in former depressions. If, as a result of recession, bank loans should decline, banks would attempt to bolster their earnings by buying additional Government securities. If these securities were purchased from any source other than the Federal Reserve banks, an increase in deposits would occur which would offset the reduction incidental to the shrinkage in loans. Federal Reserve banks are not likely to reduce their holdings of Government securities during a depression, but additional sales by the Treasury would be probable. These may be necessary because of rising expenditures, or declining revenue, or because savings bonds are being cashed at a high rate.

If business activity continues at the high level of 1946 the volume of deposits is likely also to remain high even though there is a considerable reduction in Federal debt. There is now fairly general agreement that so long as our economy continues to operate at satisfactory levels of business and employment, the Federal receipts should exceed expenditures, and Federal debt should be reduced. It is also rather generally agreed that such reduction of Federal debt as may occur in the next few years should shrink commercial bank holdings and so reduce deposits incidentally. But any such contraction will be offset more or less by an expansion of other forms of bank credit. General business conditions that will make reduction of Federal debt feasible and desirable will also favor expansion of bank loans and investments that involve other borrowers.

Among the offsets to Federal debt reduction that may be expected if prosperity continues are: (1) Expansion of consumer credit, (2) expansion of State and local government borrowing, (3) expansion of private business borrowing, and (4) expansion of foreign borrowing. Many of these loans will be obtained from savings from the existing money supply. A considerable portion, however, will be made by commercial banks and will give rise to new deposits. The total volume of deposits may not decline much, therefore, even though a vigorous debt-reduction policy is followed by the Federal Government.

Although consumer credit is now at an all-time high, it is likely to continue to expand so long as no threat of a serious decline in prosperity develops. Its present volume is much smaller in proportion to the national income than at earlier peak periods. Consumer credit was held in check during 1946 by Government restrictions and by shortages of such products as automobiles and materials for house repair, the purchase of which often involves an expansion of consumer indebtedness.

State and local government borrowing is likely to be on a much larger scale in the period ahead than during the war and may exceed even that of most prewar years. Many projects that are customarily financed with borrowed money were postponed during the war because of the more urgent needs of the Federal Government for scarce materials and labor. Meanwhile, population has grown so markedly in many communities that their requirements for public schools, hospitals, etc., are greater. Moreover, the prosperity of recent years has led to a desire for better public facilities than would have seemed satisfactory before, while progress in fields like aviation calls for new types of public improvements. A very large accumulation of public wants is waiting to be satisfied.

The volume of State and local borrowing that will be necessary to finance these improvements will be greatly affected by prices of materials and labor. A fairly comprehensive index indicates that construction costs at the end of 1946 were, on the average, nearly 60 percent above the 1940 level.[20] As wage rates and material prices in the construction industry are notably inflexible, construction costs are likely to remain relatively high whether prosperity or depression prevails.

An expansion of borrowing by State and local governments may be facilitated in some instances by an expansion in the tax base. Real estate and other forms of property should appear on tax lists at higher figures than before the war. This will permit a larger volume of indebtedness where debt limits have been a restrictive force.

If conditions remain favorable, it is likely that borrowing by private business also will rise above the 1946 level. Commercial bank loans for financing the purchase of raw materials, supplies, and labor are already at high levels. However, in a period of sustained prosperity, which almost certainly would include pronounced activity in building and financing, it would be surprising if real estate loans and loans to brokers and security dealers would not carry total loans into higher ground. These reasons also make plausible the expectation that security issues to raise "new capital" may rise above the seemingly high level of 1946. The 3.5 billion dollars raised by business corporations in that year was high only in terms of corporate borrowing in the depressed thirties and of the war years when so much new capital was provided by the Treasury.[21] It represented only 83 percent of the average for the period 1922–29. It is hardly likely that corporate borrowing will be less in this postwar period in view of the growth in population, the rise in prices, and the increased use of capital since the earlier period.

A considerable expansion of foreign loans is likely in the years immediately ahead. Foreign-capital issues, both governmental and corporate, publicly offered in the United States for the purpose of raising new capital have been at an extremely low level for at least 15 years. The average for the period 1932–46 was only 18 million dollars per year. In 1946 such issues amounted to only 9 million dollars. This compares with an average of 917 million dollars per year for the decade 1921–30, and with the record volume of 1,338 million dollars in 1927.

The relatively high volume of foreign loans that characterized the years following World War I reflected the postwar needs of many countries for assistance from the United States. There had been widespread devastation and abnormal depreciation of capital facilities. Then, too, there were aspirations for the development of better economic conditions in many parts of the world than had existed before the war. In terms of what needed to be done our foreign loans of the 1920's were, perhaps, not excessive, but many turned out badly, partly because the borrowers' ability to service the loans and ultimately to repay them was not considered with sufficient care, and partly because the importance of expanding the volume of imports as a necessary condition for the soundness of these loans was not generally realized.

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[20] *Engineering News Record:* Construction cost (all types) reported in *Statistical Abstract* and *Survey of Current Business.*

[21] The values of corporate stocks and bonds issued to raise new capital are combined here and are referred to as the volume of corporate "borrowing." This is not accurate in the legal sense, but it is in line with economic realities.

That the volume of foreign securities sold in our markets in the 1930's was low, was partly due to the depressed and uncertain conditions during those years, in many parts of the world. This tended to reduce the number of applications for loans in which the risks were not excessive. In part, also, it was due to our experience with the loans that had been made in the preceding decade. For various reasons, defaults among these loans were common in the 1930's and investors in this country suffered heavy losses. It became difficult to sell foreign issues even where the risks were low and the interest rate was attractive. With the outbreak of war in Europe in 1939 even the small trickle of loans that had characterized the 1930's almost ceased.

Foreign need for loans from the United States is many times greater now than after World War I as devastation of capital goods and general havoc have been many times greater. To supply the necessary assistance there is machinery for making loans that did not exist before this war. Through the World Bank and the Monetary Fund the risks of loans to foreign countries can be distributed widely. Additional lending power has been given the Export-Import Bank. On the other hand, experience with foreign loans after World War I has created opposition to further lending but this attitude may be modified by a growing realization that foreign loans, if wisely made, can be of all-round benefit.

AGRICULTURAL SITUATION AT END OF WORLD WAR I AND WORLD WAR II

Comparison of developments affecting the financial condition of farmers during World War I with those of World War II reveals a number of basic similarities. In both periods an abnormal demand for farm products, by Government and private buyers, carried prices to very high levels. In both periods, earnings from farm operations, greatly expanded by these prices, stimulated large-scale advances in the prices of farm lands and in other types of agricultural capital.

Differences in developments in the two wars which affect the financial condition of farmers were equally pronounced. Prominent among these was the trend of debt owed by farmers. From January 1, 1915 to January 1, 1919, farm-mortgage debt increased from 4,991 million to 7,137 million dollars, or 43 percent. During the same period non-real-estate debt owed to banks increased from 1,606 million dollars to 2,662 million on January 1, 1919, or nearly 66 percent. In contrast, during World War II (1940–45), total indebtedness of farmers fell 1.7 billion dollars, or 17 percent. The decline in debt owed by farmers was reversed in 1946, but so far, despite towering increases in farm assets, farm debt remains far below that of 1940 and still further below the level of 1919.

If the crest of the current boom in agriculture can be passed without much further increase in debt, relatively low indebtedness will be a factor of strength in the financial condition of farmers in the coming years. After World War I the fall in prices of farm products caused so much distress, not because these prices fell below their prewar levels, but because their drop from the peak in 1920 was not accompanied by a similar decline in farmers' costs, among which debt service was a very large "fixed charge." At worst, in 1921, the index number of prices received by farmers remained 24 percent above the 1909–14 average, and the average of this index for the period 1921–25 was 40 percent higher than the prewar base.

But the boom period had encouraged farmers to incur indebtedness to an extent that caused their interest obligation alone to rise from an estimated 587 million dollars in 1915 to 1,149 million dollars in 1920. This increase of more than 95 percent held so stubbornly that, even after 3 years of sharply lower farm prices, interest charges payable on all farm indebtedness remained virtually at the peak reached in 1920, and by 1925 had receded only 9 percent. Even though prices received by farmers were well above their prewar level during this period the farmers' cash income, which they influenced, was no match for increases in fixed costs such as these.

In contrast, during the World War II period, interest charges declined and stood at only 427 million dollars for 1946. Unfortunately, there are concealed in this reassuring total many individual cases where the debt obligation now is very large. Those who have bought farms, livestock, or equipment, largely with borrowed money at prices that have prevailed recently, face interest charges and principal repayments that will be formidable burdens if farm income shrinks as it did after World War I. But for farmers as a whole the improvement in the debt situation is genuine and very substantial.

A second difference that characterizes this postwar period is the relative strength of the credit facilities that service farmers. The Federal land banks, organized in 1916, entered the first postwar period with neither the experience nor the resources they now have. None of the Federal and federally sponsored agencies now making non-real-estate loans were in existence when farmers were hard pressed by falling prices and income immediately after 1920. Privately owned banks in rural areas, which during and after World War I were the chief institutional lenders to farmers, entered the first postwar period with far less strength than characterizes them at the begining of 1947. The condition of these banks is important because of its bearing on the danger of forced liquidation of farm capital if recession again should upset temporarily the calculations of farm borrowers.

Following World War I country banks were ill-prepared to cope with the deflationary situation that developed in 1920. Instead of being able to lend support to farmers who were hard-pressed to meet heavy obligations with shrunken cash receipts, these banks in many instances were forced to add to the pressure to liquidate farm assets. Withdrawal of deposits to meet payments outside the community frequently depleted the reserves of country banks and forced liquidation of bank loans and investments. As investments in Government and other readily marketable securities were relatively small in these banks, a large amount of the necessary contraction fell upon loans. Hence, at the time when farmers needed to renew and increase their borrowing to avoid selling their crops, equipment, and even land, at ruinous prices, the bankers, in order to make good their obligation to depositors and to prevent their own insolvency, were compelled to reduce their loans.

There are probably few country banks that would be in so unhappy a position were a fall in prices to occur now. Whereas at the end of 1919 country member banks held 67.6 percent of their total loans and investments in loans and only 17 percent in Government securities, in 1946 banks in this class held only 22.6 percent of the total in loans and almost 70 percent in Government securities. The present very large concentration of bank resources in highly salable Government securities, together with the present deposit insurance, virtually insures farm borrowers that this time their bankers will not be compelled to shorten credit lines to meet withdrawals by apprehensive depositors or to offset the loss of reserves that is likely to occur whenever the receipts from the sale of products of agricultural communities to other areas are not sufficient to meet the external payments. This time, country bankers should be in a position to continue normal loan operations if a break in prices should temporarily cause farmers to sustain operating deficits.

The extent to which bankers will continue normal lending will be influenced by their judgment of the prospects for price recovery and for repayment by individual borrowers under the altered conditions. Unfortunately this boom period, like earlier ones, has led some farmers to assume obligations that they can meet only if prices remain for years near the wartime levels. If prices of farm products decline, and remain at much lower levels, such farmers are likely to find their equities wiped out and further credit unavailable.

A third difference lies in the degree of expansion of production on farms in the two wars. Wartime expansion has important financial implications for farmers because postwar markets may not take at profitable prices the volume of output our farmers learned to achieve during the war.

During the period 1915–18 the volume of agricultural production averaged about 4 percent above the 1910–14 level and it reached a peak of 11 percent above the prewar level in postwar 1920. In contrast, production in World War II averaged 24 percent above the 1935–39 level with a maximum increase of 36 percent in 1944.

In certain important classes of farm products the wartime expansion was particularly notable. For example, the production of food grains reached a peak in 1915, 43 percent above the 5-year prewar average, and the average increase for the years of World War I was 11 percent. In World War II the crest of production of food grains was reached in 1945, 56 percent above the 1935–39 base, and the average production for the six war years was 33 percent above the prewar level. Production of meat animals reached peaks in the two war periods in 1918 and in 1944, at 21 percent and 55 percent above the respective prewar 5-year averages. For the war years, production of meat animals averaged 10 and 37 percent, respectively, above the 1910–14 and 1935–39 levels.

These comparisons indicate that expansion of production on farms was very much greater during the second war. Some part of this increase was due to exceptionally favorable weather. But making full allowance for this it is clear that agriculture entered the present postwar period with production expanded over the prewar level to a much greater degree than was true after 1918. This expansion suggests that production and ultimate postwar needs, particularly in certain crops, may be further apart this time than after World War I.

There are factors in this situation that may make this difference smaller than these comparisons suggest. The expansion of agricultural production in World War II started from a level that was relatively lower than in World War I. The decade of depression before the recent war was characterized by relatively low domestic consumption of agricultural products and an even lower level of exports. Production was correspondingly low—held down partly by market forces and partly by Government-sponsored restrictions.

It is not likely that prewar levels of domestic consumption of farm products will again prevail. Low domestic consumption during the 1930's was a result of a volume of national income that was smaller than is likely to be experienced in the years ahead. Since 1940, the population has grown by more than 11 million and the peacetime working force has increased in proportion. In times of full employment the earnings of these millions represent a considerable addition to the national income. If a recession should come, decrease in pay rolls due to loss of jobs would be partly offset by social-security benefits. Moreover, the belief is growing that before a decline in economic activity would reduce national income to prewar size, Government would intervene to hold it at a better level, if only to make the existing Federal debt and the necessary tax payments tolerable.

Not only is a decline of the national income to prewar levels improbable, but the amount that will be spent for food is likely to increase because of the emphasis now being given to the consequences of deficient diets. Adequate nutrition has become a matter not only of individual interest but of national and international concern. Moreover, greater food consumption, particularly by the groups and peoples with the most deficient diets, may offer an acceptable solution to the problem of agricultural surplus. As a result, a higher level of consumption of food than prevailed before the war is likely to find support in public policy and may be encouraged by governmental assistance, which would make available to a larger proportion of the population the necessary elements of an adequate diet.

Exports of agricultural commodities also are likely to remain well above prewar levels. For at least a decade before the last war exports were abnormally low, partly because of drought, but particularly because influential domestic policies tended to suppress exports, and because effective foreign demand for farm products was low.

In the 1930's, after the tariff had been raised to unprecedented heights, an attempt was made to raise domestic prices by various means, which included acreage restriction and Government loans to facilitate the withholding of agricultural commodities from the market. Unfortunately, to the extent that these practices succeeded in their domestic objectives they tended to suppress exports. The higher tariff made it more than ordinarily difficult for foreigners to acquire dollars with which to buy goods from the United States. Acreage restriction and price-supporting measures raised the cost of farm products to foreign buyers. Despite efforts to overcome these obstacles by modification of the tariff, by devaluation of the dollar, and even by subsidies, exports continued at a mere trickle. In part, this was because of the low demand from foreign countries.

Demand for our agricultural products from foreign buyers was low during the 1930's for various reasons. As stated, the tariff policy of the United States curtailed, at first severely, the supply of dollars these buyers could acquire by international trade. Dollar loans to supplement these earnings were difficult to obtain by most countries for the reasons given. Moreover, numerous countries, through currency depreciation, had added to the cost of importing from the United States. Some raised other barriers to our agricultural exports in order to achieve certain national goals related to the threatening war.

These conditions are now somewhat different. There is the possibility that through machinery associated with the United Nations the barriers to world trade may be further modified. This would tend to increase the volume of dollars that foreigners may earn through international trade. At best, there will be many cases where such earnings will not suffice for a number of years to pay for goods that foreign countries need and which could be exported with profit by the United States. The need for dollar loans during the period of world reconstruction therefore is large.

The newly organized International Monetary Fund and the World Bank of Reconstruction and Development now supplement private bankers, the Export-Import Bank, and the United States Treasury, as sources of dollar loans. It is therefore likely that exports will receive considerable stimulus from this quarter. What proportion of these exports will be agricultural products cannot be foretold, but the degree of disorganization of agriculture both in Europe and in Asia, together with the international concern for better nutrition, suggest that the proportion in the immediate future may be large. As agricultural production recovers in various war-stricken countries the need for such products from the United States will decline. But if efforts directed toward world organization and rehabilitation succeed in raising the level of living in various areas where diets have never been adequate for many millions of people, the decline may not be severe. The world has never yet been free of hunger, to say nothing of being well-fed.

One thing is clear. Farm income and the values on the balance sheet which it sustains are not static. Changes in consumption, prices, and production can quickly alter the financial situation in which farmers find themselves. Accordingly, future developments both at home and abroad are of the highest significance. If domestic employment and foreign trade remain at high levels, a market of sufficient breadth is assured to preserve an essentially strong financial position for farmers. On the other hand, if there should be a recession in domestic business activity and employment or a sharp decline in exports a fall in prices of farm products with repercussions on farm income and the balance sheet can hardly be avoided.

Any decline in prices probably would vary among farm products and would affect the values of the several classes of farm capital differently. Even within the same class marked differences probably would occur. Reduction in the value of real estate would tend to be greatest where current prices reflect the tendency to capitalize the current high earnings most optimistically. In other areas, where a more cautious and conservative view has been taken, the decline in real estate values would be less. Distress selling probably would be much less important in depressing the market for farm products and capital than it was after 1920. The generally strong financial position of agriculture and of the credit facilities that make loans to farmers should keep forced sales well below those that followed World War I. The financial structure of agriculture is stronger than before the last war because liquid assets are greater and debts are smaller. A considerably lower level of income could occur without seriously weakening this structure.

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